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THE
AMERICAN
BEE-KEEPER

VOLUME X
MDCCCC

H. E. HILL Editor
Fort Pierce Florida

THE W. T. FALCONER MANUFACTURING COMPANY Publishers
Falconer New York

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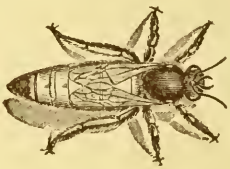

THE AMERICAN BEE-KEEPER

A MONTHLY JOURNAL PUBLISHED FOR THE BENEFIT OF EVERYONE INTERESTED IN BEES AND HONEY

JANUARY

1900

Vol. X

No. 1

THE A B C OF BEE CULTURE.

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If there is any book on bee-keeping of which bee-keepers have reason to be proud, it is Root's A B C of Bee Culture. I am reminded of this by the receipt of a copy of the latest edition, which is just out. There is probably no firm in the whole wide world possessing the facilities and advantages of The A. I. Root Co. for getting out a work of this kind. It has plenty of capital and a thoroughly equipped printing office. More than this, there is an experience of more than a quarter of a century in actual, practical bee-keeping and in publishing a thoroughly progressive, up to-date bee journal. More than anyone else, an editor has an opportunity for being fully informed regarding the actual state of the industry which his journal represents. Thousands of letters from all parts of the country pass under his eyes each year. In order that the best possible advantage might be taken of the knowledge thus secured, The Root Co. has been to the expense of keeping the book standing in type. As often as new discoveries or changes are made, a corresponding change is made in the subject matter of the A B C. By this method the last edition of the book is up to date. It cannot be otherwise than that the edition just out is decidedly the superior of any previous editions. When a beginner writes and asks me what book he'd better buy, I unhesitatingly tell him, "Root's A B C of Bee Culture"—and I have a book of my own to sell.—*Editorial in Bee-keepers' Review, October*, 1899.

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Manfg. Co.

Vol. X JANUARY, 1900 No. 1

Comb Honey.

Its Care and Preparation for the Market.

BY F. S. EMENS.

AS THE time has just past, with us, and while it is fresh in our memories, I thought it would be a good time to give a few hints on caring for comb honey. Notwithstanding the fact, that the year 1899, in Seneca county, has been rather discouraging to bee-keepers, we have learned to "take our *medicine" with good grace.*

Next to getting plenty of nice comb honey, is the care of it. Too many seem to think that the producing part, is about all there is to any branch of business. How frequently we find butter, fruits and meats of different kinds taken to market in such poor condition that they do not bring as much within 30 per cent. as goods of a poorer quality, where the producer understands placing his products on the market in attractive style. The producer of honey, above all others, will suffer a severe loss if the product of his apiary, is not put upon the market in neat and attractive packages.

My aim has always been to remove my honey from the hives before it is soiled by the bees, and keep it in perfect shape until it is placed upon the market. This is by no means an easy task, for from the first honey is liable to accidents, which, if they occur, will reduce the value of No. 1 honey 20 per cent. Do not employ help that will get their fingers against the nice, white cappings, or get the corner of one section against the face side of the comb into another section. By so doing you will avoid paying wages to help for committing an actual damage to your business.

FRED S. EMENS.

The utmost care is necessary at all times when handling section honey, to keep it in good condition for the city markets: Carelessness with our honey is one of the main reasons why we are so often compelled to take a low price for our product. Honey should always be kept in a warm room with a good circulation of air. Never store your honey in a damp place, as it is likely to sweat and take on a watery appearence. It is necessary to use the utmost care from the time the honey is taken from the hive until it reaches the consumer. In this way, as a class, we will find bee-keeping a profitable industry.

Fayette, N. Y. Nov. 20, 1899.

◆

Persevering.

If Not Always Successful.

BY J. F. HEATH.

I AM always interested in communications found in the American Bee-Keeper written by the leading bee-keepers of the country, and have looked with considerable expectancy for response to the editor's invitation to others to write.

I presume the invitation was extended to small bee keepers and beginners, to which class I belong. So far the response seems rather meager.

Now, my advancement along the line of bee-culture has not been so rapid as to make me confident of an early graduation from the adove mentioned class.

The writings of Mr. Doolittle and the several other scientific bee-keepers I find a source of much pleasure. Although much that is said is far beyond my comprehension, and often as viewed by mental vision "up in a balloon," the mental inquiry occurs accompained by a sigh—will we ever "get there?"

I became interested in bees about ten years ago, at which time I bought my first hive of bees. I have never lost interest in them, though success or failure has several times caused a fluctuation in that interest.

My stock has never exceeded about a dozen colonies. In several seasons I have been quite successful, or perhaps it might more properly be called fortunate, as probably it may have been due more to the season and other favorable conditions than to tact and ability on my part. From the first I was quite ignorant of the subject.

Often in the early history of our business association I thought the bees had a very warm attachment for me and I would many times find myself the "great center of attraction," brought about doubtless by my bungling way of handling them, and I often left their presence several degrees wiser than when I came. But as time passed and I became more observant of the bees, their habits and requirements, I learned that quiet movements and careful handling very much changed their attitude toward me.

This state, although credited with leading in some affairs, I think does not rank high as a honey producer. According to reports from different localities in the state the past season has been the most disastrious in a number of years.

The loss of bees last winter and spring may safely be estimated at fifty per cent., while the production of honey will not, probably, exceed twenty per cent. of any one of the several preceding seasons, consequently many have become disheartened and will drop out. Many bee-keepers, especially of the small class, do not read bee literature, and, of course, they do not avail themselves of the benefit derived from suggestions and advanced ideas, but manage the bees as did their fathers, or in other words, allow the bees to care for themselves.

East Thorndike, Me.

◆

A wash-boilerful of red clover blossoms thorougly boiled and the extract reduced by evaporation to the consistency of salve, is a sovereign remedy for cancer, writes a Canadian correspondent.

Honey Vinegar as a Preservative.

BY M. F. REEVE.

THE question has been discussed in several publications devoted to bee culture, whether vinegar made with honey as a base would be a good preservative. One writer said it spoiled pickles; another declared that honey vinegar was as good as any other. I can say from practical experience that when properly made, there is no reason why a vinegar of this sort should not be as effective as any, particularly the "fake" vinegars that are so extensively on the market now a days, State Food Inspection Boards to the contary notwithstanding.

Several days ago our firm engaged in the manufacture and sale of mead—a beverage which was made by the fermentation of a mixture of Cuban honey and Demarara sugar, flavored with certain spices. This was bottled and served around to the retail shops. Naturally considerable of it went sour in hot weather, and had to be exchanged. The sour material accumulated fast, and there were several barrels of it on hand at the end of the soft drink season. The problem was to get rid of it. So we studied up on the science of vinegar making, and set up a generator. This was a whiskey barrel. It was bored full of half-inch auger holes, sloping downwards, and was then filled with beech shavings procured from a shoe-last factory. A false bottom was put in, on which the shavings rested, and a loose head was dropped on top. A spigot was inserted in the barrel, and the generator was ready for business. The already sour mead was poured into gallon stoneware jugs and heated over night on a shelf above the kitchen range; in the morning it was poured in at the top of the generator and allowed to percolate through the shavings. The air admitted through the sloping holes in the sides of the barrel did the business of supplying the required oxygen, and a few runnings through the barrel, was all that was necessary to convert the fluid into the sharpest, clearest vinegar anybody ever tasted. It was used in the preparation of peppersauce, composed of chopped cabbage, peppers and spices, which is a great Philadelphia relish. In this way, hundreds of gallons of an otherwise waste product were utilized to make a good sharp vinegar. There must be a generous body, say a pound of honey or sugar, or molasses to the gallon; otherwise the maker will have a thin vinegar which will lack the prime requisite—acidity.

Rutledge, Pa.

◆

An Experimental Apiary.

BY "SWARTHMORE."

I CONDUCT an experimental apiary here in Swarthmore solely for my own amusement. All through the summer I luxuriate in delight with the bees—they are my vocation: my yatchting, my gunning and fishing, my only and completely satiating recreation. Then, besides, we are all of us fond of honey, especially for breakfast (by the way, Danzenbaker said at the convention that it was becoming fashionable to have honey for breakfast in Washington, D. C.). I have not the least idea how many hundred pounds of the delicious sweet are consumed in the course of a year under my roof, but I have an inkling that the amount is large enough. But to my last:

During the past season I spent much time with different hive arrangements to discourage swarming, in the production of comb honey in out yards or at home and was fairly successful in the accomplishment of this end. I hope to give, by the close of another season, a detailed report of this work with the assurance of even more satisfactory results—that is, in honey! More and better!

I was quite successful with the plan of caging the queen behind perforated metal, on one comb, until the brood in the remaining eight or nine combs had passed the royal age; then removing queen and comb and giving a hatching cell But I found this plan a little fussy, so abandoned it for a better one, about which I shall write later.

Perhaps it should be said that by the above caging plan no cells are ever built on the combs while the queen is confined behind the excluder; therefore all cell-cutting is entirely avoided—bees will seldom swarm with a young queen, you know.

Any plan for the prevention of swarming, or for any other purpose, that leaves a colony queenless for more than a few hours, is woefully wasteful. But, if no cells are at hand at the time of removing the queen the bees may be allowed to build some from the young brood left behind the zinc; then either destroy all but one cell at the end of the twelfth day (when the excluder should be removed), or the cells may be left as they have been built (behind the zinc) until the young queens have hatched, destroyed each other and but one remains; then remove the queen excluder to allow the reigning virgin a wedding flight.

Another plan and altogether the best one, for young queens are always wanted in a large yard, is to start some queen cells in the queenless section, a la Doolittle, and have them going along while the laying queen is confined to the single comb. Under the conditions present at this time the best of queens will be reared at no cost and with very little trouble. Take heed, however, that no cells are left in this compartment long enough to hatch, for if they should there would be swarming galore, at its very most, too; with virgin queens.

Now, Mr. Editor, if this matter is thought interesting to the readers of The Bee-Keeper I will continue the subject in the next number and tell how I secure an extra large force of workers and compel them to enter the boxes just at the opening of the honey flow by the U. D. manipulation, which does away with nearly all the internal performances necessary in other plans recommended. In fact, my plan is so simple that one man can prepare an out-yard of one hundred colonies in a single day; furthermore, the apiarist may rest assured that there will be no more swarming from the colonies thus prepared than from the same colonies worked for extracted honey.

Swarthmore, Pa.

[We shall be pleased to have "Swarthmore" present his methods in detail of preventing swarming, etc , as suggested, and our pleasure would be increased by his permission to publish his pen productions over his real and full name. With the possible exception of certain peculiar instances the use of a *nom de plume* tends to detract from the interest that the reader would otherwise take in any communication.—Ed.]

◆

The Sandy Bend Editor.

BY EBENEZER SKIES.

GOOD mornin,' Ebenezer, you haint seen nothen of a stray shoat over this way, her you?"

"Well no, neighbor Sherret, we haven't. Will you not sit down a bit. How's all the folks with you?"

"Tolerable, tolerable, thankee, 'cepten my daurter Hannah, she's got the quinsy right bad."

"Quinsy, eh! a very disagreeable thing. What's she doing for it?"

"Oh nothin' much, 'cept eatin' a little salt now'n then."

"We have had the quinsy several times ourself, and we will tell you what Eliza Jane always does for us. She always gathers some well ripened sumac seeds. That is, when the clusters are at their reddest. Sumac seeds, you know are sour and astringent. Well, just as soon we feel the quinsy coming on, or, in fact when any of the family gets a bad sore throat, she picks off about a half a pint of seeds and puts them in a pint tin cup and fills it nearly full of water and sets in on the stove, and lets it boil until the water just nicely covers the seeds. She then pours this out into a tea cup and adds as much honey as there is of the decoction. We believe buckwheat honey is the best. We use it as a gargle every hour or so. It never fails to give relief. I'll have Eliza Jane tie up some of the seeds for you to take home with you."

"Thankee! thankee! It do beat the stars how many things honey kin be used fer. Now my wife Betsy thinks ther's nothin' in the world fer a burn like a paste of flour and honey—put on a rag and tied on, you know."

"Yes, and what's better for boil than poultice of soap and honey?"

"And hoarhound and honey fer cough or cold."

"Yes that's good. But we believe that the best expectorant and cough remedy in the world is made from colts-foot, or wild ginger, hoarhound and honey. Two ounces of colts-foot, one-half ounce hoarhound put in a pint of water and boiled until it is reduced to a half a pint; strain and add half a pint of good clover honey, and bottle. Dose, a teaspoonful every two hours and at bed time."

"For croup we don't believe there is anything better than honey and alum. Put a teaspoonful of pulverized alum in three tablespoonfuls of honey. Give a teaspoonful every fifteen or twenty minutes until the youngster throws up the phlegm that is causing the croup."

"Yes, and it do beat the stars what good things the weeman kin make to eat outer honey, too. Betsy kin make the nicest kind of cakes and cookies by usen honey. And last hollow eve you ought to have seen the taffy she made outer boilen down honey and stiren in hickory nut goodies and a little butter and a pinch of salt."

"That just reminds us of the honey ice cream that Eliza Jane made last Fourth of July. She put a pint of honey in a pan and set it on the fire and scorched it thoroughly. This was then stirred in three quarts of cream, together with a pint of good clover honey, making four quarts in all. This was put in the freezer and frozen. Strange as it may seem the scorched honey gave it a delicate carame -like flavor. No other flavoring was used."

"Yes, I just bet that would beat the stars. And while about it I'm goin' to give you Betsy's receipt for makin' pun en-sass with honey. She peels and slices enough punken to make about a gallon when cooked. When its cooked nice and fine she puts in a lump of butter about as big as a hen's egg, a little salt and a teaspoonful of ginger. Mix this thoroughly and set off the fire; when it is about half cold she adds a quart of clover or basswood honey. When she puts it in the dish for the table she puts a little milk in it. It beats the stars how the youngsters do gobble it up. But, by hokey, I must be on the move or that shoat will git clear out of the country. So mornin', Ebenezer"

"Good morning, neighbor Sherret; come again."

We allowed to give our friend Haffins another lesson this time, but Uncle Jonathan Sherret staid so long this morning that we have hardly time, and will stand him off until the next time.

(To be Continued)

◆

A writer in the Canadian Bee Journal tells the editor of a few things in regard to how a bee-paper should be run. Here are two of them: "It should strictly exclude from its colums all reports of big crops." * * * "I think that a bee journal should honestly publish failures." We do not know of a bee-paper that does not "honestly" publish failures," but if the world is to have a journal that chronicles only failures, its pages, to be appropriate, should be a sombre blue, with a cover of black crape, and its title, "Blasted Hopes."

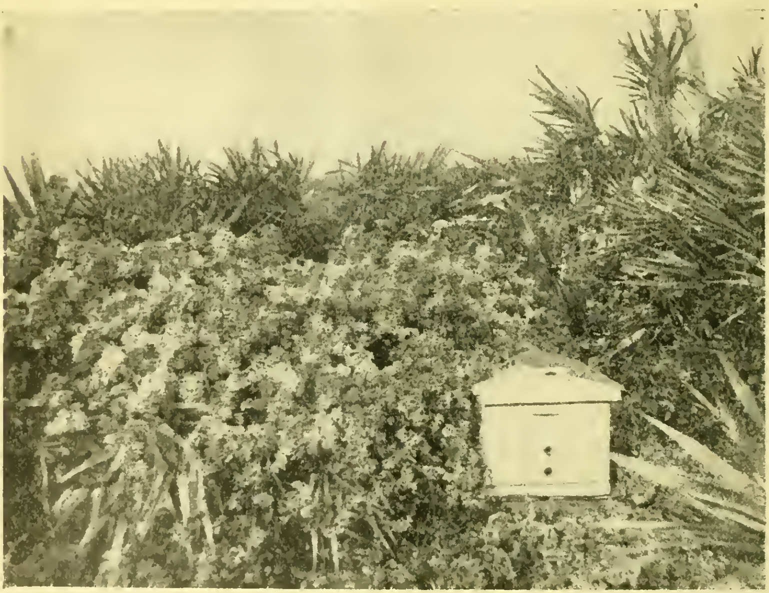
◆

Self Culture, a high class monthly, sent with the American Bee-Keeper for $1.00 a year.

A Floral "Snow-Drift."

BY H. E. HILL.

IN MAKING a hurried move some distance up the river, in November, the eight-frame, single-story, L hive, which was in use as a fertilizing hive, shown in the accompanying picture, being in an isolated nook, was overlooked. Some ten days later, when I returned for it, it was found almost completely buried by a solid mass of creamy-white flowers. The vine is known locally as Madara-vine, though it is not the true Madara-vine, and it had entwined itself compactly about everything in the immediate location of the hive. The mass of delicate white blossoms had come to beautify the place almost with the suddenness of the snow-falls in the Northwest, of which I had just been reading.



A FLORIDA "SNOW DRIFT."

During the day, while writing the letter on "Locality" for the December number of The Bee-Keeper, I had thought much about the vast difference of conditions that obtain at the same time in our own country. In some parts of the North I knew that the snow-drifts were fence-high, and as I discovered the buried hive beneath its load of flowers, "Here is a South Florida, 'snow drift,' " thought I—a tropical, floral "snow-bank," gay with butterflies, sweet with the perfume of bursting blossoms and musical with the hum of busy bees. Truly ours is a great country, and the matter of locality in many ways is one that has a most important bearing upon our industry.

Then, glancing down the river shore, I observed a lone cabbage-palm, another of our beautiful nectar-yielding trees, standing in the water's edge. "What a lovely initial that would make," thought I again. If only The Bee-Keeper had ten thousand subscribers, so that the expense were justified, or, rather, made possible for me to bear, what a genuine pleasure it would be to "dish up" all the pretty and interesting subjects that fall in the way of a traveling bee-keeping editor. But this time I determined to gratify the inclination and turned my camera upon the lone "cabbage" that stood for Indian river, and "stood" so well out into its waters that its roots were twice each day bathed by the flowing tides.

Fort Pierce, Fla., Dec. 20, 1899.

From Gleanings in Bee Culture.

FIVE-BANDED BEES.

Question.—Are Golden Italians what are called by some people five banded bees?

Answer.—The worker bees from an imported queen direct from Italy show two colors on the abdomen, next to the thorax. That on each segment nearest the thorax is of a leather color, and that farthest from the thorax being of a brownish-black color. This gave birth to the expression, "three-banded bees." As the breeding toward the yellow progressed, some individual workers were found having a very narrow stripe of yellow on the fourth segment of the abdomen, and with this stripe came the contention that the Italian was *not* a pure race of bees, but a mongrel or thoroughbred, as the question arose regarding this fourth band thus: "If bees showing three bands are pure, what are those showing yellow on four?" As the breeding for the yellow continued, that on all the segments became wider and wider, the yellow encroaching on the black or dark more and more all the while, until individual specimens began showing a very minute stripe on the front edge of the fifth segment, which gave rise to the present term "five-banded." As this yellow on the fifth segment increased, the dark or black stripes on the first, second and third segments vanished altogether; and as progress continued the black finally disappeared on the fourth segment also, which made this individual bee appear like a lump of gold as it sported in the sunshine in front of its hive This gave berth to the name "Golden Italians." And thus it is that five-banded bees and the Golden Italians are one and the same thing, only the goldens are a little farther advanced in the race towards the yellow line than are the five-banded. While this is so, the two terms are very largely used indiscriminately, both being applied to the very yellow bees of today.

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Dr. Mason in Bee-Keepers' Review:

BEST QUEENS, ETC.

In The American Bee Keeper Mr. Ed. Jolley says: Dr. Miller says that the queen from the first sealed cells are the best. My experience is that when a

> colony in normal condition is deprived of its queen it will, in its haste to replace her, choose a larva that is too old to produce a first-class queen. Queens from the cells that are sealed from one to two days after the first ones will be the best ones—queens that are in every way equal to those produced by natural swarming. The cells last sealed are apt to be on larvæ that are too old; so that neither the first nor the last are as good as the "come-betweens."

We all know that Dr. Miller and Mr. Jolley are both pretty good authority, but my experience is the same as Mr. Jolley's in cases where a colony is suddenly deprived of its queen, and left to raise another; or where the the queen has been removed for the purpose of producing queen-cells. Some of these first sealed have a look of inferiority; and, with me, have produced inferior queens.

GLASS OVER SECTIONS.

Farther on in his article, in speaking of the desirability of having comb honey sections nice, clean, and white, he says:

> I have been trying a plan this season which, so far, has given good satisfaction. I put a piece of glass the size of the section crate over the sections. The glass lying flat on the smooth, upper surface of the sections leaves no room for propolis. It is not necessary to lift it until the super is completed. You can look down through the glass and through the interstices of the sections, and see their progress without disturbing the bees with smoke, breath, or air. I put a cloth over the glass in some hives, and leave some without anything. The bees work equally as well in one as the other.

Probably there are many localities where a glass honey-board like that would be real nice to have, but I'll guarantee that if Mr. Jolley were to produce honey in my locality he would need to buy his glass by the carload, or scrape the propolis from the bees' legs before they entered the hive, for they would so fasten the glass to the sections that the easiest way to remove it would be with a hammer; but it would be a treat to be able to see the bees at work between the sections.

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Subscribe for the American Bee-Keeper, 50 cents a year.

The New York Bee-Disease, or the disease now prevailing among the bees of that state, is thus clearly described by the bee inspector, N. D. West, in Gleanings in Bee Culture:

"We have, I think, more than one kind of disease on the ground, and yet there seems to be a tracing from what I have called pickled brood, all the way along from bad to worse, and in different stages, until at last it so closely resembles foul brood that it is difficult to draw the line between this and the genuine foul brood, although some of the dead brood will be found at times to be flattened down into the cell, and will be about the color of white glue, and will, when a tooth pick is placed in it, draw out from its cell from ½ to ¾ of an inch. But you have to hold your tooth pick with an object in view, and try to get it to string out or it will not follow the tooth pick at all. Some of this becomes coffee-colored, and is rotten in the cell, and will string out some, but it will not break and spring back like rubber; neither do the combs, when held close to the nose, give off that offensive and sickening odor that I get from what I call the old-time foul brood. The hive, when opened, or a comb held close to one's nose will give a kind of sour smell, or odor; but one of these coffee-colored, rotten brood, when removed from the cell and held close to the nose, will have a sort of rotten smell *only*. But take a hive full of brood, three fourths of it good brood and one-fourth of it bad brood, as described above, and place it on top of a pretty good swarm to hatch; place a queen-excluding zinc between the hives, and keep the queen below, and in due time the brood above the excluder will all be hatched out, and all of the bad brood will be cleaned out of the combs, and no more trace of the bad brood is seen in these hives that season. This has been my own experience in my own apiaries this season, and these colonies in the lower hives were slightly affected, as well as the brood placed on top of the colonies."

THE AMERICAN BEE-KEEPER

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H. E. HILL, - - - - EDITOR.

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☞Matters relating in any way to business should invariably be addressed to

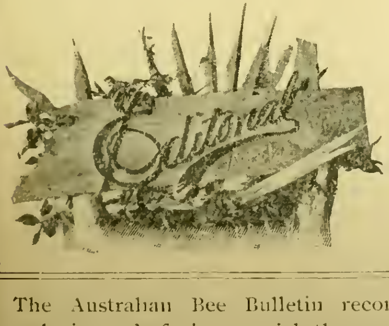
THE AMERICAN BEE-KEEPER,
FALCONER, N. Y.

☞Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.



The Australian Bee Bulletin recommends, instead of wires a stick the same size as the bottom-bar, placed horizontally in the middle of the frame, as a support to brood and extracting combs.

The Japanese, it is said, keep fully 2,000 colonies of bees within three miles of Honolulu.

The second abundant flow of honey-dew in over 25 years is reported to have occurred in his locality last fall, by F. Greiner, in Gleanings.

Our readers are requested to carefully note our clubbing list. In some instances we can furnish the Bee-Keeper with certain other magazines at less than the regular cost of the others alone.

D. W. Heise, in the Canadian Bee-Journal discusses the Apis dorsata question, and goes on to tell just what can, and cannot be done with the giant bee. Say, Mr. Heise, please admit The Bee-Keeper into that discussion; we don't know anything about it, either.

The Leahy Mfg. Co., of Higginsville, Mo., have recently acquired the exclusive right to manufacture the Heddon Hive in the United States, except the few that Mr. Heddon may wish to make himself, and their arrangements are such that anyone buying the hives from them will not be compelled to get an individual right to use same from Mr. Heddon.

Gleanings for Nov. 15, and the December number of the Review vie with each other for honors at the head of the list of handsome apicultural publications. The enterprise of these publishers is admirable—doing credit to the industry. We congratulate Messrs. Hutchinson and Root upon the beauty of these exquisite numbers.

The Bee-Keepers' Review, in a long and unbiased editorial, discusses the relative merits of barrels and tin cans as a shipping package for honey, and the editor says that in his travels through Wisconsin he found all the extensive producers used barrels; that the buyers expect to find it in barrels and prefer it in that way. If the producer and the consumer find the barrel most advantageous, the preferences of the middleman is a matter hardly worthy of note.

The nineteenth annual convention of the Northeastern Ohio and Northwestern Pennsylvania Bee-Keepers' Association will be held in Chapman hall, Andover, Ohio, January 17 and 18, 1900. The program includes a number of very interesting subjects, which all bee-keepers and their friends are invited to discuss. A rate of $1.00 a day has been secured for those in attendance, at the Arlington hotel, and it is urged that as many bee-keepers as can conveniently do so will attend. Copies of the program may be had by addressing the secretary, Mr. Ed. Jolley, Franklin, Pa.

BEE-KEEPERS' INSTITUTES.

A clerical error in the publication office is responsible for the non-appearance in our last issue of an announcement of the dates of a series of bee-keepers' meetings held at various points throughout the state, and the last of which will occur at Geneva on January 10th.

Through the effort of the New York State Association of Bee-Keepers' Societies this new departure in educational work has been undertaken by the Bureau of Farmers' Institutes of the State of New York, under the directorship of Mr. F. E. Dawley, and much credit is due the State Association for the good work it has accomplished since its organization in 1898.

The Bee-Keeper regrets the error on its part, and hereby humbly tenders to President Marks due apologies; pledging our best efforts to avoid a repetition of the blunder which precluded the possibility of our assisting the good cause on this occasion.

FRED. S. EMENS.

Mr. F. S. Emens, whose likeness it is our pleasure to present in connection with an article on the care of comb honey elsewhere in this number of The Bee-Keeper, was born at Varick, Seneca county, N. Y., March 4, 1865, and spent the first twenty years of his life in America on a farm. Since that time he has been occupied in a general store, acting as postmaster at Fayette, N. Y., during eight years of the period. He has served one term as town clerk, and is a member of the M. E. Church.

Mr. Emens began his bee-keeping career at the tender age of ten years, in a small way, and has since been constantly engaged in the business very successfully, harvesting tons of comb honey every year from his apiary of about 60 colonies, which is run exclusively for the production of comb honey.

Mr. Emens has for five successive years been president of the Seneca County Bee-Keepers' Association; and is now serving his second term as vice president of the New York State Association of Bee-Keepers' Societies.

Lastly, we are pleased to announce, Mr. Emens is also a member of The American Bee-Keeper's staff of contributors for 1900, and he is eminently capable of giving us much that will be interesting and helpful during the year.

HON. JEAN L. BURNETT RE ELECTED.

At the risk of being accused of "meddling with politics," we openly proclaim our sorrow at finding that we have not a rooster in the office that we might stamp upon this page to crow long and loud for Jean L. Burnett, the bee keepers' friend, recently re-elected from Ontario county, N. Y., to serve another term in the State Assembly.

President W. F. Marks, of the N. Y. S. A. B. K. S. in a recent letter to The Bee-Keeper, says:

"You will remember Mr. Burnett as the champion in the last legislature of our new foul brood law. Bee keepers of this state are to be congratulated on his re-election, as they have found in him a valuable friend in the Assembly."

The following extract from the Lyons Republican tells how Mr. Burnett is regarded at home; which indicates that he is as "solid" with his neighbors as with the bee-keeping public:

"Hon. Jean L. Burnett, of Ontario, was re-elected to the Assembly on Tuesday by one of the largest majorities ever given to a candidate in that county. His majority in the county was 2.244. In the city of Geneva alone he received 537 majority, while in his home town of Canandaigua he received 1,042 votes to his opponent's 359, giving him a majority of 683 in his own town. Mr. Burnett's constituents evidently appreciate his able services in the Legislature and they have showed their appreciation in a manner which is highly complimentary to Mr. Burnett."

INFLUENCE OF CLIMATE ON HONEY.

The following explanation was tendered by President Whitcomb at the Philadelphia convention of the United States Bee-Keepers' Association in response to the Bee-Keeper's exceptions to some of the remarks attributed to him at Omaha:

"In some remarks made at the Omaha convention relative to the influence of climate on honey, I was slightly misquoted, as these remarks were only intended to compare the effects of climate on the kinds of honey produced in our climate, and not to contrast our own honey with that produced in Florida, Texas and other Southern states. I said that taking white clover, for instance we were not able to compete in richness, density and flavor with Minnesota, Wisconsin, northern New York and Canada. In our own state we have found that the best premiums are taken by the more northern counties while in heartsease honey they were not able to compete with our own locality. I have been a newspaper man for more than twenty years and I know what a controversy through the press means, and have forborne making this explanation until this time, in order to do full justice to the bee-keepers of the South whose product I am little acquainted with, and whom I recognize as producing fine honey of their class, and which we could not hope to produce, or even make a comparison with any other produced anywhere. I am not at all surprised that these remarks, going out as they did, should be resented, but trust that my explanation will be received in the kindly spirit in which it is made."

From the above it would appear that Mr. Whitcomb has been grossly misquoted. Contrast the foregoing with this sentence, which he was reported to have made at Omaha, and which The Bee-Keeper objected to; "Climate has much to do with the flavor of honey; a warm climate producing that of inferior quality, and a colder climate producing honey of much better flavor."

Now it transpires that Mr. Whitcomb was speaking solely of Northern honey; confessing to only a slight knowledge of the product of the Southern states.

BUSINESS COURTESY.

Under this heading we could write an article of almost indefinate length, were we so disposed, for our long experience in business affairs has brought the subject very vividly to our notice many times Courtesy should always be shown in all matters; it leaves a good impression and is conducive to friendly feelings which coldness and inattention do not beget. We recently experienced one of the most flagrant examples of discourtesy, not to say business idiocy, with which it has been our displeasure to come in contact. We recently sent out to several publications a suggestion to exchange advertising space. Almost without exception these were met in a most courteous manner. Here is one of the exceptions, and the instance to which we refer above, in answer to our letter to a German publication in St. Louis, entitled "Herold des Glaubens" we received the following:

"GENTLEMEN:

Your proposition has been received and was promptly deposited into the waste-basket. When you get ready to pay 'cash' for your advertising we shall be pleased to hear from you.

Yours truly,
L. B. Blankemeier,
Manager."

And this, mind you, was *printed* on a postal card, showing that it is their custom to send such a reply to any proposition that does not meet with their unbiased approval. For a comparison we also print another letter, received in the same mail.

> "THE CHRISTIAN HERALD."
> Rev. T. Dewitt Talmage, D. D., Editor.
> New York, Dec. 19, 1899
>
> "GENTLEMEN:
>
> As we do no exchange advertising, we cannot avail ourselves of your kind proposition of the 16th inst. Thanking you for same, I am.
>
> Yours very truly,
> P. B. Bromfield,
> Mgr. Advg. Dept."

Now, which of these two papers do you suppose will receive our "cash" advertising, which by the way is several thousand dollars a year? It surely is not difficult to surmise. One is the letter of a gentleman, the other that of—well we do not doubt but that our readers are able to fill the blank.

WHY DISCOURAGING?

Among the "Good Things From Other Journals," which Dr. Mason selects for the Bee-Keepers' Review, the following item is quoted from a paper known as "Wurerzburger Wegwerser:" "A Hollander by the name of Verholen, for several years, with the most tenacious pertinacity, tried in Java to domesticate the big Indian bee, but all in vain. Eighty-seven different colonies were captured and hived, but every single colony deserted its brood and honey, and took its departure." The doctor then follows with this editorial from the American Bee Journal, which he is inclined to regard as "still more discouraging, if possible, than the above." "Apis dorsata was discussed in convention by Australian bee-keepers. H. L. Jones read a paper moderately favoring their introduction. Mr. Pender thought they might be valuable for wax production. Mr. Bradley said he had lived long years in India, and the man who would bring them into Australia should be prosecuted. They were migratory, as bad as wasps, with stronger colonies. Mr. Abram told of a gentleman who had gone to expense and travel and then decided to let them alone. Mr. Jones said a gentleman in Singapore was trying to domesticate them. It begins to look as if a good deal of time and valuable space had been taken up in talking and writing about apis dorsata. The Italian bee will likely 'hold the fort' for some time yet."

We share with Dr. Mason the interest he feels in the efforts being made to domesticate dorsata, but are far, very far from sharing the discouragement which the foregoing items seem to have imparted in his case. The editorial was not a report of the Australian convention, but a brief resume of the particular feature in which the Journal was, perhaps, most interested.

The paramount question among bee-keepers of Australia today is, not to secure more honey but rather to develop a market for that already on hand and now coming in. Unlike America, the talk is all "markets," "exports" and "board of exports." An idea of the general situation there existing may be gathered from the statement of one of the participants in the convention to which the Journal refers: "Our bees produce too much honey now." This remark was delivered during the discussion which followed the reading of Mr. Jones' paper "moderately favoring" the introduction of dorsata, quoted by the Journal, and it echoes the sentiment of Australian bee-keepers today. Is it any wonder that any project likely to increase the production of honey should be unpopular? Increased production would mean still lower prices for them.

As to the Hollander, and the Wurerzburger Wegwerser, it is not improbable that a commendable effort was made to domesticate the giant bee, and his efforts, if as reported, would be creditable to the United States government. Uncle Sam has not done so much for his people in this line as this one lone Dutchman, and we cannot help feeling some regret that the latter did not try two or three more colonies. His faith may have failed him just before the dawn of success. It is possible, of course, that he might never have accomplished his desired end; for, have not seventy times eighty-seven colonies been experimented with "all in vain," in trying to have queen cells accepted, built, and queens fertilized above an excluder with a laying queen below? And all these failures in view of the fact that the plan is an established success—all pursued under explicit, printed instructions.

What Australia, Holland or China may think or want in relation to this matter is of no concern to America. To be content with mere foreign rumor when the upbuilding of our industry is at stake, ill becomes American enterprise. It is absolute knowledge of the matter and the opportunity to profit by whatever good may develop, that is demanded by the agricultural interests of *this* country. That we yet remain thus ignorant of this subject, as Prof. Cook has said, ' is not creditable to the enterprise of our time." And to quote again. from Langstroth, "It behooves our government to take such matters in hand for the public good."

Surely we are not to forsake our faith, our long-cherished hope and ambition, through fear of a mere shadow.

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New York State Association of Bee Keepers' Societies.

The annual meeting of the New York State Association of Bee-Keepers' Societies will be held in the parlors of the Kirkwood Geneva, N. Y., January 10, 1900, at eleven o'clock, a. m. All bee-keepers societies in the state are hereby notified and requested to send delegates. An urgent invitation to attend is also extended to everybody interested in apiculture.

By order President.

Migratory Bee-Keeping in Pennsylvania.

The following extract from a report of a recent meeting of The Philadelphia Bee-Keepers' Association is from The Ledger of that city:

It is not uncommon for bee-keepers in Eastern Pennsylvania to move their colonies to the marsh districts along shore to get the benefit of the stores in the smartweed blooms. Some go into camp for this just as sugarmakers do in the wilds of Maine, extracting the combs day by day, coming out at the close of the brief season with barrelfuls of nectar to be fed back, ripened and sealed over when the hives are again on the stands at home. Mr. Flower suggests that in the moving especial thought should be given to having sufficient ventilation during hot weather. The best method of shipping is to remove the covers and bottoms, and cover the bodies with fine wire cloth. If the bees are to be in the hives more than twenty-four hours, a piece of sponge should be laid on top at one corner, and be kept saturated with water, so the bees may satisfy their thirst.

◆

"Taking into consideration the fact that there are nearly a million bees in every colony," explained the glib vendor of patent hives, "and that each bee has to make something like 750 trips a day to and from the surplus boxes with his honey, you will readily see that by adopting this arrangement you are saving the bees in your five colonies nearly 17 000 miles of travel on foot every year; for we give the supernatural position, and it stands to reason———"

"Say, stranger, I reckon we'll make out with the old uns a while yet," quoth the prospective victim, seriously. "I was allers a mite skeery o' these 'supernateral' fixins, anyhow; and I must go."

◆

In India the rhododendron grows to a height of 30 feet. Marigolds and camomiles in North Africa reach a height of four or five feet.

Freeport, Me., Nov. 2, 1899.

American Bee-Keeper: A short note in regard to honey crop in some parts of Maine from my own observation:

E. H. Gammon, Yarmouth, 75 colonies of bees, not any surplus honey. E. F. Wells, New Gloucester, 55 colonies, no surplus, 25 colonies taken up and destroyed, no honey to winter on. George Clark, New Gloucester, 10 colonies, very little honey. D. W. Alexander, Richmond, 32 colonies, a few colonies with a little surplus, most of them very light for winter. Mr. Grant, Clinton, exhibited at Maine state fair, reports very little comb honey. My bees—nine colonies—40 lbs. comb honey. Several others that I have not visited give varying reports, from 40 lbs. per colony to none—most of them none.

Yours very respectfully,
Willis Snow.

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The Self Culture Magazine ($1.00 a year) with the American Bee-Keeper, $1.00 a year.

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Honey and Beeswax Market Report.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark, That is, there will be "fancy white," No. 1, dark, etc.

CHICAGO, Dec. 15.—We quote best white comb at 15c; an occasional small lot of fancy sells at 16c; off grades of white, 12 @ 14c; ambers, 10 @ 12c. Extracted, 8 @ 9c for fancy white, 7 @ 8c for amber; 6 @ 7c for dark grades.

Receipts are larger and the demand is not as good as it has been; most of the retailers have laid in a supply to carry them over the Christmas time. R. A. BURNETT & CO.

CINCINNATI, Dec. 15.—There is a good demand for all kinds of extracted honey. White clover and basswood sell at 8 @ 8½c; amber and Southern, 6 @ 7c, according to quality and package. Fancy comb honey in no-drip shipping cases sells at 15 @ 16c; darker grades hard to sell at any price. Beeswax, 26c. C. H. W. WEBER.
Successor to Chas. F. Muth & Son and A. Muth.

KANSAS CITY, Dec. 18.—We quote No. 1 white comb: 13½ @ 14c; No. 2, 13 @ 13½c; No. 1 amber, 13 @ 13½c; No. 2, 12 @ 13c. Extracted, white, 7½ @ 8c; amber, 7 @ 7½c; dark, 5½ @ 6c. Beeswax 20 @ 22c. C. C. CLEMONS & CO.

NEW YORK, Dec. 20.—Demand is very good for all grades of comb honey. Receipts are somewhat light and not up to former years. We quote:

Fancy white, 15c; No. 1, white; 13 @ 14c; amber, 11 @ 12c; and buckwheat, 9 @ 11c, as to quality. Extracted remains firm at following prices: California white, 8½c; light amber, 8c; white clover and basswood, 8c; amber, 7½c. Very little trade for extracted buckwheat as yet. Southern, fancy, 7½c per pound; other grades, as to quality, from 70c to 75c gallon. Beeswax quiet at 26 @ 27c. HILDRETH & SEGELKEN.

OMAHA, Dec. 19.—The November trade has up to the present not been as good as was expected, and shows a falling off from October. It seems that somewhat higher prises this fall are affecting the consumptive demand to some extent, still the warm weather yet prevailing in this part of the country may also be responsible for part of it. While trade has been light, prices have been well maintained, nobody being burdened with stock to such an amount as to become oppressive.

Fancy white still going at 14@14½c. and light amber 1 cent less. Extracted, white, 8@8½c.—

PEYCKE BROS.

BOOKS FOR BEE-KEEPERS.

Every bee-keeper, and especially if he has not had long experience, should have at least one good text book upon the subject. The following are doubtless the very best works on bee keeping. In ordering by mail be sure to add the amount of postage named.

	Price.	Post. Ex.
A B C of Bee Culture (A. I. Root), cloth,	$1 00	20c
Bee Keepers' Guide (Prof. A. J. Cook)....	1 00	15c
Langstroth on Honey Bee, rev. (Dadant)..	1 10	15c
Quinby's New Bee-Keeping (Quinby).....	1 40	10c
Thirty Years Among Bees (Alley)........	48	2c
How to Manage Bees (Vandruff)..........	25	5c
Amateur Bee Keeper (Rouse)............	20	5c

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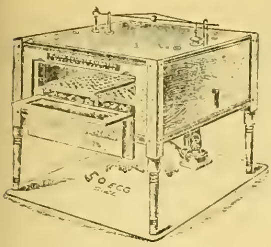
Jamestown, N. Y.



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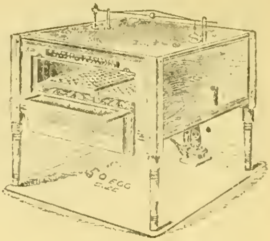

THE NEW C. VON CULIN INCUBATOR is the most perfect in Ventilation, Moisture and Heat. It hatches every hatchable egg. Money can be made and saved with this most perfect incubator. Catalog free. Poultryman's Plans, 10c. Address

The W. T. Falconer Mfg. Co.

(Incubator Department) Jamestown, N. Y.

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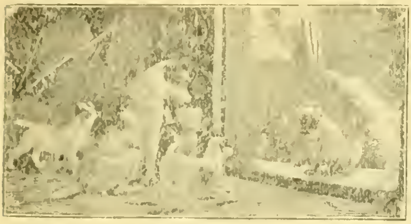

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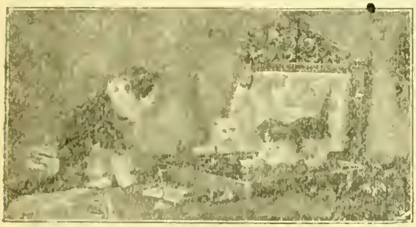

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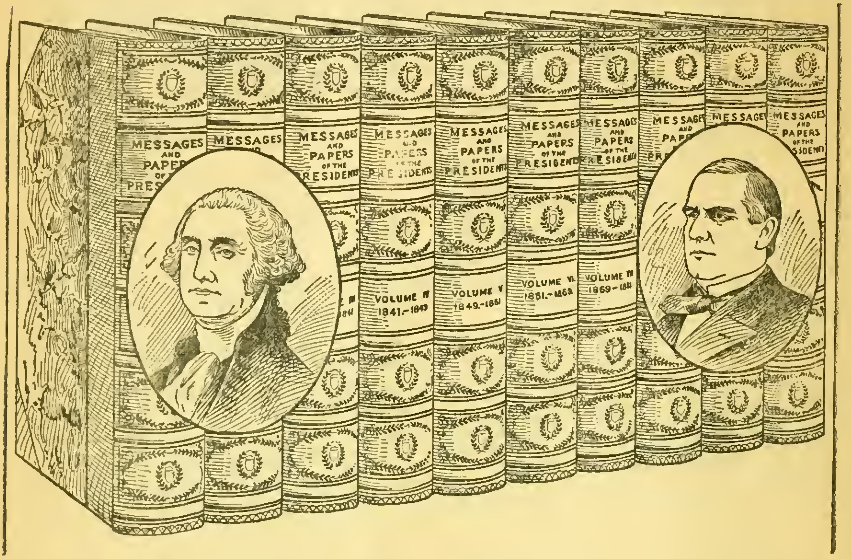

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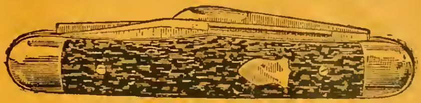

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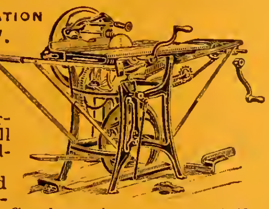

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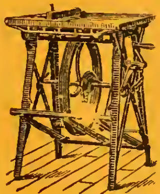

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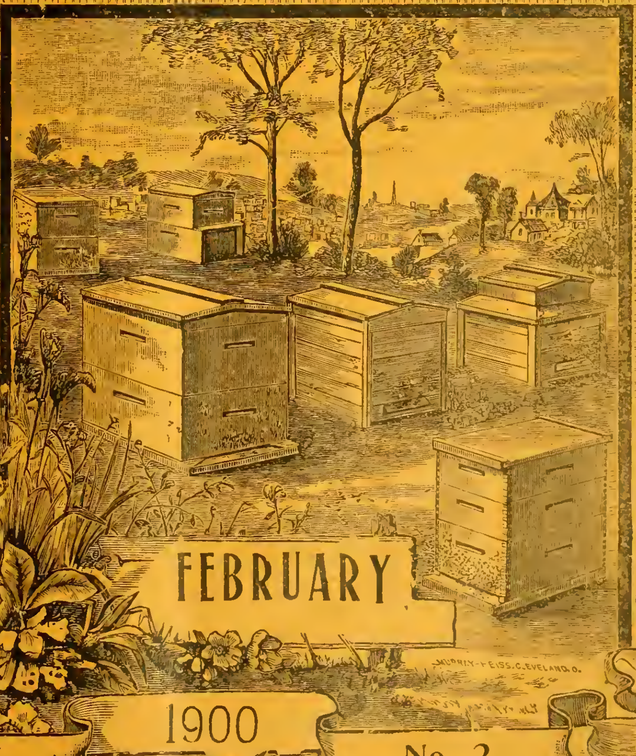
THE AMERICAN BEE KEEPER.

A MONTHLY JOURNAL PUBLISHED FOR THE BENEFIT OF EVERYONE INTERESTED IN BEES AND HONEY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FEBRUARY

1900

Vol. X No. 2

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BEE-KEEPERS' REVIEW,

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And I will have your subscription to the American Bee-Keeper renewed for one year, send you 12 back numbers of the *Review*, and then the *Review* for all of 1899. Remember two things: You must be a **NEW** subscriber to the *Review*, and the order must be sent to

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X FEBRUARY, 1900 No. 2

The January Bee-Keeper.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

HOW often I have wished some one would read over my large number of weekly and monthly papers and tell me just what there was in them of value, and just where I could find that value, so I could be spared the amount of reading necessary to pick out that which was really valuable, from that which was partially so, or worse still, that which was only chaff. Nearly all writers, and I am no exception, mix in things which are hardly worth the reading, much less reading twice, while the writers are very few, who do not say *some* very valuable things. Therefore if the valuable could be dished up together, in compact shape what a blessing it would be to the very busy worker among our pets, the bees. Again, by having our attention called a second time to that which was of real value, it would be the more thoroughly stamped on our memory, and the thing would be given added emphasis, so that we would be doubly profited by it. These are thoughts which have been passing through my mind for some time past, and as I had promised to write ten articles for the American Bee-Keeper for the year 1900, it came to me that I could not serve the reader better than by gathering up what seemed to me the most valuable thoughts, in reading any number, as soon as it arrived, and telling the readers about it, so they would get these valuable things in the next number. And as I am now reading the January number I will, right here and now, tell the readers as best I may, about some of the things which I consider worthy of more than a passing glance, by way of emphasizing them.

DO NOT EMPLOY CARELESS PEOPLE TO HANDLE HONEY.

The whole article by F. S. Emens is worthy of a second reading, but the best part of the whole is this: "Do not employ help that will get their fingers against the nice, white cappings, or get the corner of one section against the face side of the comb in another section." And as added emphasis, I would say, see that *you* do not do it yourself. Nothing ever tried my patience as did the help I hired more than 25 years ago, along the line E. tells us about, and this was the very thing which decided me in the course I have taken in hiring *no* help at handling section honey, from the time the bees were off from it till it was securely crated ready for market. And even after it is all crated for market some are so careless that they better not be allowed to touch even a single case. Mr. E's words, 'By so doing you will avoid paying wages to help for committing an actual damage to your business," brought very forcibly to my mind how I paid a man, about 25 years ago, $1 50 for a day's work, during which he damaged honey to the amount of about $8.00 loss to me. But there is now and then a person who can handle honey to fully as good advantage as the apiarist himself can, and for this reason I consider my decision of 25 years ago as rather too sweeping. But it is well to know your help before you hire them, otherwise you will wish you had done the handling of the section honey yourself.

"GETTING THERE"

J. F. Heath, 1st col., page 2, in telling how much which he finds in the bee papers is beyond his comprehension, asks, "Will we ever 'get there?' " That was the enquiry I often made when reading the writings of Dr. Gallup, A. Grimm, Moses Quinby and many others of the noted writers of a quarter of a century ago. And to the "persevering" ones there can be but one answer, and that is, yes, if you "strive for the mastery" intelligently, as well as "perseveringly." And the "intelligent" part of this matter lies in not trying to begin at the *top* of the ladder and climb down. Begin with the A B C of bee-keeping first. In other words, procure some one or more of the many good bee books, and through them thoroughly master the elementary part of bee-keeping, and then what you read in the bee papers will not appear as "up in a balloon," but will be right within easy grasp. When little, all of us first learned to creep before we could walk, and so those little of stature in the bee pursuit, should not try to escape the foot of the ladder in climbing, for no one became really great in any one profession by one mighty leap.

QUIET MOVEMENTS.

The same writer says, in speaking of the "warm attachment the bees often had for him in their business associations," "I learned that quiet movements and careful handling very much changed their attitude toward me." Well, that don't sound "up in a balloon" at all, for in this matter Bro. H. has learned something practical, that many who are keeping bees have yet to learn. More than one-half of those who come to my apiary for knowledge about the busy bee, will strike at the first bee that comes "enquiringly" about them, and I know of several would-be bee keepers who have given up in disgust, simply because they were unwilling to learn what Bro. H. has done. Indeed, while visiting an apiary, as a body of bee men, at the adjournment of a national bee convention some few years ago, I saw nearly one-third of those bee men (?) take off their hats and go to striking the air in a most desperate fashion, because some bees seemed to want a "business association" with them. It was very ludicrous indeed to see ten or more "old stagers" acting in that way. One was more wise than all of the rest and laid prone on the ground, with his face downward, and allow me to say, he came from the "field of strife" without the real "business meeting" some of those "hat whirlers" enjoyed(?). Let every reader "paste in his hat" those words of Bro. H., "*quiet movements and careless handling*," if they would receive the minimum amount of stings, and have an apiary noted for the quiet disposition of its bees.

"SWARTHMORE."

The article from "Swarthmore" will bear reading twice, and then after you have read it twice, read it again carefully, reading in between the lines all you can, for any enthusiastic bee-keeper on the non-swarming question, can read two or three good articles right out from between the lines. Then read the first paragraph four times, and if you are of the kind that sees only *fun* in the apiary, an article or two will just stand right out between the lines in that paragraph. Bee-keeping a luxury? Yes, more so than all the luxuries we have in eatables, "drinkables, clothables, and sleepables," combined, to the person who has the bee "fever" on. And show me a successful bee-keeper whose bee fever is not at the "white heat" all the time. Bee-keeping a delight? Yes, more than beautiful landscapes, gorgeous clouds, sun-kissed leaves, etc. Yes, nothing delights the eyes of the practical bee-keeper so much as a colony of bees all ready for *business* in the month of June. Then "they are my vocation, my yatching, my gunning and fishing, my satiating recreation." *Amen.* If I only had the time and space, oh, how I would like to write a whole article on each of these noble, inspiring thoughts. He who does not feel his spirits quicken and his blood tingle to the tips of his fingers and toes, on reading those "notes" of "Swarthmore," certainly lacks one of the great essentials which go toward making the successful apiarist.

Then I am equally interested in those non-swarming experiments, and am waiting impatiently for the next number to know more of the matter, as promised, for if I can prepare my out-yard of 30 colonies in "*one day*," so there will be no more swarming there than if worked for extracted honey, I shall be fully satisfied, let alone the preparing of 100. But, say "Swarthmore," will you tell us as soon as you can, certainly in time for next summer's use, why you give a ripe queen-cell to that colony having its queen kept "behind perforated metal, on one comb, until the brood in the remaining eight or nine combs has passed the royal age," instead of quietly removing the metal and letting the queen back on the whole of the combs again? By thus letting her go on the combs again, we would save that "woeful wasteful" of keeping a colony queenless more than a few hours. Please tell us more about this.

Well, here I am with an already too long article, and yet lack five pages of being to the centre stitching wires, in the January number of the American Bee-Keeper. Who ever would believe that the American Bee-Keeper contained so *many good things?* And all for 50 cents a year. Why the January number is worth ten times that amount alone, to the bee-keeper who "has eyes to *see*."

Borodino, N. Y., Jan. 13, 1900.

Successful Artificial Increase.

BY FRANK L. REHN.

THIS spring I had six hives of bees, all on moveable frames, of eight frames to the hive, and desiring to increase as rapidly as possible, and yet so as not to impoverish the parent hive, it became a question to me as to what method would be best to adopt.

This being my first year in the handling of bees, it became a necessary adjunct to success to thoroughly understand the manner of the natural increase of bees; after a close study of the bee and the more careful scrutiny of the bees on the frames at very close interval, I determined to proceed.

Accordingly, on May 3rd I set four hives apart as those from which I would make my nuclei; the other two hives I used in a different way.

On May 3rd I had an opportunity to make but two; on May 6 I make three more; on May 13th I made seven, June 13th six; Aug 2nd another, and on Aug. 15th still another, making 20 nuclei, from the four, and still leaving sufficient in each of the original four to recover and gather and breed.

In making the nuclei, have the hives all prepared before opening the parent colony, thus: I nail the body with two long nails just tight enough on the sides to hold to bottom-board temporarily; plug the entrance with fresh grass as tight as possible, then place a strip of wood across the entrance and nail with one nail, so that not a bee can get out; place division board and two frames with one-fourth sheet of foundation in hives. The hives being thus ready, and having the enamel cloth and cover handy I proceed thus:

Smoke parent hive and after a few minutes lift cover and remove division board, lift frame after frame until I find the queen, set this frame in an empty hive, then proceed to look for material for nuclei.

I, taking a frame containing at least one half honey, with clinging bees, and place in the hive I wish my nucleus to occupy; then look at other frames until I find eggs that are under three days old; in other words eggs that are standing upon end; this frame, with adhering bees, is put in the hive along side of that with honey, then draw up to them the two frames that have the foundation, then the division-board and lastly the enamel cloth and cover.

This work must be done as rapidly as possible, so as to keep all bees possible on the frames before the effort of the smoke has worn off.

In this way I proceed until I secure all I want at that time. In some cases where I find sufficient honey and eggs in one frame having sufficient clinging bees I use that alone, or shake a few more bees from another frame.

I replace the frame with queen in old hive and give several frames with foundation, replace cover and let it alone for a week or ten days, when I again go through the same process.

I find there are three cardinal points to be observed in order to succeed. First, the eggs must be under three days old; second, the bees must not be released until after night fall of the fifth day after dividing; and lastly, that the cover must not be removed until the eighth day.

APIARY OF FRANK L. REHN.

On the eighth day I draw the nails on side, so I can raise body from the bottom-board, and clean out the dead bees and examine the frames to see the number of queen-cells the bees have started and capped. In every case I have found at least six, and have had them in varying numbers up to 30 in a single frame. When I found quite a few I would cut out some and make more nuclei, and insert a couple of cells between the frames, and these queens would all hatch about the same time. The queens I raised in this way I have found to be large and prolific, and have yet to find my first that

I can say is no good.

Every week or ten days I would go to the nuclei and look them over, giving them a gentle smoking, to cause them to fill themselves with honey, then raise the hive from bottom-board, brush off any dead bees and watch closely for indications of moth; replace on board and examine frames, and as soon as I see that the queen is laying nicely I close down and mark the hive; then I go to the two hives that I had reserved at the beginning and take out all the frames of sealed brood I can find and brush *all* bees off, putting a frame of foundation between each remaining comb; there being all the bees left behind they take hold of the foundation immediately and in a couple of days the frame has a perfect comb with plenty of eggs.

These frames of brood I give to every nuclei that I think would be better by a little encouragement, and in a few days it has a great quantity of young bees, which has a very stimulating effect upon each young colony.

This method I practiced several times during the season; each time I gave a frame of sealed brood to the nuclei and also a frame with a one-fourth sheet of foundation, but being always careful to see that I did not scatter the bees over too many combs, and always keeping the combs on the east side of the hive, to warm up as early in the day as possible.

From one of the four original hives I made 12 nuclei, besides taking at three different times during the summer two full frames of sealed brood, being six in all, and in September took from same hive six frames of honey and gave to nuclei. On Oct. 15th when I packed it for winter it had eight frames full of honey, bees and brood. This hive has a leather-colored queen, mated with a hybrid drone; the bees have five bands very plainly marked, are rather disposed to be cross, but have great gathering and breeding qualities.

In every case each hive of bees gathered sufficient stores for winter, and when I packed them, the middle of October, all

MR. REHN'S APIARY IN WINTER QUARTERS.

had a great deal of brood and bees, and all having eight frames, in such condition that I hope for successful wintering. Next year I shall change my mode a little by hatching and using virgin queens, and inserting them in each nuclei.

I herewith show a photograph I made of my apiary on the summer stands, and one in winter quarters, showing all but two of my hives under one shelter.

Collingdale, Pa., Dec. 5, 1899.

◆

The Philadelphia Honey Market.

BY M. J. REEVE.

RECENTLY an unsuccessful effort was made to obtain statistics from the wholesale grocers along Water and Front streets, where the principal jobbers are located, and from several of the largest retail store-keepers along Market street on which to base an estimate as to the total amount of the honey crop which is handled annually in Philadelphia.

Three of the largest wholesale firms, who in former years were noted for their large transactions in comb and extracted honey stated, however, that they were doing nothing in that line any longer. When asked the reason for this, a member and buyer for one firm replied that the large retail stores now bought direct from the producer, and handled in that way the greater portion of the honey coming to Philadelphia. The same story was told by wholesale dealers in bakers' supplies.

Prices of comb honey vary greatly. In three different stores located within a short distance of each other along Market street, comb honey was displayed in the show windows, marked 16, 18 and 25c. "We could sell all the comb honey we could handle if we could put out White Clover at 'two-for-a-quarter,'" said a salesman at the first store. "During the season we run off about 8,000 pounds of comb and extracted, and at the end of last winter we were all cleaned up. We sold considerable buckwheat at 10 cents a comb; but our trade prefers white clover. Our stock comes from New York state, New Jersey and Pennsylvania."

At another store a salesman said, "We handle New York state white clover in full sections at 25c., and last year we disposed of 100 cases of 22 combs each.

"We have a steady trade which demands the best, and we pay a good price for it. This consignment comes from Union Springs, N. Y."

In a third store, a label in the window announced:

"It's dark in Color
But Sweet as Honey Can Be.
16 cts."

Last year a considerable quantity of California extracted honey was disposed of in the Philadelphia market; but none is visible this winter in the large retail stores, and its place appears to be taken by Pennsylvania and New Jersey productions, although nobody keeping an apiary appears to be throwing up his hat and cheering about an overplus.

Rutledge, Pa., Jan. 14, 1900.

◆

Color.

The Part it Plays in the Rearing of Queens.

BY W. H. PRIDGEN.

ALTHOUGH much is being said against breeding for color it is evident that those who condemn it are guilty of the same to the extent of keeping up their chosen standard. As long as bees are kept, color will be one of the main points in making a selection for breeding purposes. Of course, the mother of the occasional "rousing colony of hustlers" is highly prized for the work done by her individual force, even if cross-mating causes the additional energy, which is often the case, although the type may be so well fixed that it cannot be detected in the worker progeny, but her usefulness ends with her days, as the bad qualities more than counter-balance the good ones, usually.

WHAT CONSTITUTES A GOOD QUEEN.

She must be thoroughbred, prolific,

long-lived and produce gentle, industrious workers. One that comes up to these classifications can be relied upon to impart, in varying degrees, the same qualities to her offspring, and especially if handed down for a number of generations, and will become nearer and nearer fixed with each successive one.

W. H. PRIDGEN.

Perfection in development and quality usually go together, though in rare instances apparently poorly developed queens are not lacking in quality, while others on which nature does her best, from all appearances, are worthless.

The occasional introduction of new blood is recommended to prevent degeneration, which usually carries with it the propensity to sting in proportion to the improvement in business qualities, even if it be the same strain from a distant family, while color, once well established, moves smoothly on. For this reason it is harder to combine the best working qualities with good temper, as a rule, than with color.

It is agreed that hybrids will not do to breed from, if fixed characteristics and permanent improvements are the ends in view, and the writer at least, does not know how to determine the purity of stock without making color play its part, unless the test be carried to the second generation where the mixed blood invariably crops out if present, regardless of the mating of the young queens, from such a mother, and even then color is the main factor.

Usually when one advises against breeding for color he has chosen a well fixed type as to color, and of course has less trouble in getting the color of his standard combined with other desirable qualities than does the man who is breeding a strain in which this type is not well fixed, but he does not place much value on a queen unless her progeny comes up to his standard in color.

Of course, when the ideal bee of fixed characteristics is reached, there will be nothing more to strive for, but until then many will lend their efforts and energies in the direction of beauty, and work harder than any other class to improve the strain of their choice, inasmuch as the greater variations lend enchantment and make the work the more interesting.

If it is true that other qualities are lacking where there is much color every one can make his own selection.

I am not saying anything against any particular race but am puzzled to know how color is to be overlooked in making the selection, even if one wants to breed simon blacks.

Creek, N. C., Jan. 5, 1900.

The Production of Honey for Profit.

BY G. W. DEMAREE.

THE question as to which of the two marketable classes of honey—honey in the comb, or honey separated from the comb with the honey extractor—is the most profitable to the producer, is more generally discussed, perhaps, by writers on profitable bee-keeping, than any other like question pertaining to the business. And yet it occurs to me that the question has not been probed to the bottom in all these years.

The cost of production, cost of marketing, amount of each class produced, comparative price, etc., are points that have been pretty well covered by the numerous writers on the subject. But looking at the question as I do, one of the great— if not the greatest—considerations has been overlooked when discussing this subject. I refer to locality of the apiary. If every locality was precisely the same in honey resources, and seasons of "honey-flow" between March and November, then the question might be practically decided for all honey producers. Let me illustrate the question here, from personal experience. In the past ten years the little white aster has gained fast hold in my locality, and my bees, some seasons, gather honey from the aster bloom during the month of October with the overflow of a white clover or linden honey harvest, and yet my bees are incapable of building combs to store the honey that late in the season. Such late gathered honey can only be saved by supplying the bees with extracting combs and taking the honey with the extractor. There are localities, however, where honey is never gathered as a *surplus*, except at a time when the bees can build comb to store it in, and in such localities, under proper management, comb honey may be produced as a specialty. In my experience of over twenty years in the apiary, the honey extractor has been the "stay" and "prop" to the bee business with me. Though my crop consists every season of both comb and honey taken from the combs with the extractor, I often in poor seasons for comb honey foresee failure in time to make the best out of poor prospects, by removing the section cases and putting in their places extracting supers to catch the light flow of honey that would result in very little in comb building.

In concluding this short article, it is clear to me that profits from the apiary must depend largely on the skill of the apiarist, especially his knowledge of the resources of his locality.

Christianburg, Ky., Jan. 8, 1900.

New York State Association of Bee-Keepers' Societies.

Report of their Third Annual Convention.

THE third annual meeting of the New York State Association of Bee-Keepers' Societies was held in the parlors of the Kirkwood Hotel at Geneva, N. Y., Jan. 10, 1900.

After the roll call, the first on the program was a paper by S. A. Niver, of Groton, N. Y., on the grading of honey; he being absent, the paper was read by the President, and Mr. Niver was re appointed a committee of one on grading.

In the address of President W. F. Marks he spoke of what had been accomplished by the Association, mentioning the assistance obtained from the Department of Agriculture, the appointment of three Foul Brood Inspectors and the heading off of the repeal of the Fruit Spraying Law. He also condemned the method of having our product sold on commission, and advocated selling outright, the same as manufacturers sell their products.

Mr. E. R. Root, of Medina, Ohio, being present was called upon, and devoted his talk mostly to the subject of the so-called foul brood in the eastern part of the state, saying that the A. I. Root Co. had engaged Dr. Howard of Texas to study the disease, so as to ascertain exactly what it is.

Messrs. West and Stevens, Foul Brood Inspectors for the state, also Prof. Benton, who had just completed a tour of the infected district, were quite unanimous in believing that the disease is not the old-time foul brood.

Mr. S. D. Willard of Geneva, one of the largest fruit growers in the state, was present by special invitation. He seemed to be very enthusiastic in regard to the spraying of fruit trees while in bloom, and heartily in sympathy with the bee-keepers.

Mr. Root gave an account of his trip among the bee-keepers and sand storms of Colorado, which was interesting, and showed the elements which they have to contend with, and from which we are free.

Prof. Benton delivered a very interesting and instructive illustrated lecture on Bees and the Fertilization of Flowers, which occupied the evening session.

The following officers were elected: President—W. F. Marks, Chapinville, N. Y. Vice President—F. S. Emens, Fayette, N. Y. Secretary and Treasurer—C. B. Howard, Romulus, N. Y.

C. B. Howard, Sec'y.

Geneva, Jan. 10, 1900

THE AMERICAN BEE-KEEPER

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H. E. HILL, - - - - EDITOR.

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Postage prepaid in the U. S. and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

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Fifteen cents per line, 9 words; $2.00 per inch. 5 per cent. discount for two insertions; 7 per cent. for 3 insertions; 10 per cent for 6 insertions; 20 per cent. for 12 insertions.
Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

☞Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
FALCONER, N. Y.

☞Articles for publication, or letters exclusively for the editorial department, may be addressed to
H. E. HILL, Fort Pierce, Florida.

☞Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Where but a few frames are used with division-board, in a large hive, to accommodate a small colony, it is better to close the entrance on the side upon which the frames are placed, and allow the bees to enter the vacant apartment at the opposite side. The nucleus is thus enabled to better protect itself against robbers.

When writing to advertisers please do not forget to mention The Bee-Keeper.

Dr. Miller, in Am. Bee Journal, says it is a fact, according to his experience, that white clover does not yield nectar until it has been in bloom ten days.

J. A. Golden, in the Review, recommends placing a quantity of slacked lime upon the bottom-board of a hive containing bees during the winter. This, he says, by absorbing the moisture, tends to bring about the desirable condition of dryness in the hive. Mr. G. also says that he has learned by experience that honey will cure poisoned flesh. In his own case two applications of honey in two days reduced the swelling; and that three applications cured a case of eczema.

A writer in the Australian Bee Bulletin complains that several of his former honey customers have engaged in bee-keeping, among them being a doctor and a lawyer. These professional gentlemen, he says, run to him for advice and expect him to help them out of all their bee-keeping difficulties, but if he seeks medical advice for his child, or legal council, he is charged the regular fee. He has therefore decided that in the future apicultural advice from his establishment shall be had for cash only.

NOW, FOR OUR THIRD YEAR.

In entering upon our third year in editorial charge of The Bee-Keeper, as we do with the present number, we desire to express our gratitude to the many readers who have so substantially shown their friendly interest in the paper. As a result of these courtesies it gives us pleasure to announce that our subscription list is steadily on the increase, and the acquaintance developed through correspondence during the past two years with hundreds of bee-keepers is a pleasure not lightly esteemed. Instead of finding the work "up-hill," as some of our friends seemed to fear we should, there is a pleasure and fascination about it which increases with each successive month. We therefore enter upon the year beffore us with pleasant anticipations of the furture, and trust that our readers will respond generously to our request for their experiences and ideas, in order that we may make the paper more interesting and instructive than ever before. With the co-operation of our readers we shall continue to introduce new features as fast as the advancement is thus rendered possible. We shall be glad to have a letter from each of our readers, and as often as they may find it convenient to thus favor us.

DEATH OF MRS M. F. REEVE.

We learn with profound sorrow, through a brief note from the bereaved husband, of the death of Mrs. Millard F. Reeve, of Rutledge, Pa., which occurred Jan 6, 1900. Mrs. Reeve was 43 years of age. Three children, aged 18, 14 and 12 years, are left to mourn the loss of a kind devoted mother. Mr. and Mrs. Reeve would have celebrated the 20th anniversary of their marriage next month. We condole deeply with the bereaved family in their hour of sorrow.

UNSEASONABLE ARTICLES.

A favorite theme with some of the bee-papers just now is that of the unseasonable character of the matter published by their cotemporaries Dr. Mason, in Review, takes a rather broader view of the matter and says that he has a dictionary and an encyclopedia that are full of "unseasonable" matter; but, like the bee journals the information is there ready for use when wanted. Exactly so. The volumes of his journal are as much a work of reference to the studious bee-keeper as are the above named books We do not look for, nor expect to find all matters of seasonable interest in the last number of our journal; nor, indeed, in all the numbers of the current year. Who has not found himself turning back five, ten or twenty years in tracing some interesting subject or idea? The chief mission of such a periodical publication is to afford a medium for the discussion of subjects pertaining to our business, and to record current developments as they transpire in our industry. These old numbers are hardly less valuable than are those of the present. If the matter is at hand it matters not whether it was published this year, last year or the year before. All any one can reasonably expect of his journal is to keep him informed on the important matters in general up to date.

"GOOD THINGS IN THE BEE-KEEPING PRESS."

The Progressive Bee Keeper, after the style of the Review, has introduced a department under the above title. The new department is presided over by that observing and practical writer, "Somnambulist," whose intertaining productions have long been regularly published in that journal under the heading, "Wayside Fragments." Two full pages are devoted to comments on The Bee-Keeper, and a general reference to the volume just closed is thus made in the opening paragraph:

> "Being possessed of patriotic streaks prompts me to begin with the journal which in its name embraces the whole western hemisphere, as well as islands of the sea, The American Bee-Keeper. It is, as near as possible, true to its name, for its readers have been taken from Canada to Florida, and thence to Mexico, California and Chili. All favored bee-keeping haunts have been most faithfully described and illustrated, and should any unknown ones be discovered, their merits and demerits will, most probably, receive their due."

As viewed by Somnambulist it would appear that The Pan-American Bee-Keeper would be a rather more appropriate title for our Journal; but, in addition to taking our readers to the utmost extremes of the western hemisphere for 50c., we have on some occasions gone with them around the world. While our work is in the interest of American bee-keepers, our field for the gleaning of knowledge and information for them is the wide, wide world.

WRITING FOR PUBLICATION.

A recent number of the American Bee Journal has this editorial paragraph which we consider so thoroughly to the point and tersely put that we print it entirely:

"We are always glad to publish the good things that our subscribers send in, drawn from their actual work among the bees. Many a little short cut or kink that you use would help some other bee-keeper if you would write it out and send it in for your bee-paper to publish. We do not ask this as would a beggar, but simply suggest that as you have been helped by the writings and experiences of others, it is no more than fair that you should contribute your share as a slight token of your appreciation of the aid you have received from those who have been glad to give what they could to make your efforts more successful in the apiary."

Whispering a very solemn *amen*, The Bee-Keeper takes the floor just to add that the bee-keeper who puts his quill to paper only for the meager pay derived from the publisher of his articles, immediately and directly, is lacking in the one element most essential to the attainment of success in his business.

The rapid strides made in the science and practice of bee-keeping during the half century just past, and the present great proportions of the industry, are conditions largely due to the fraternal feeling and unselfish interest taken in its development by many of its promoters. A broad conception of the importance of the work before us is essential to the success of our industry, and the bee-papers afford a medium through which, by mutual exchange, the producers' ideal may be evolved. It brings to the bee-keepers' home and fireside each month a "convention" of those actively engaged in the same work—a "convention" in which he is invited to participate, and to which his aid and support are justly due.

Let us have a more general response to our repeated requests for the ideas of our readers upon matters affecting our business. It is the bee-keepers themselves, not the editor, that would profit by such a generous flow of ideas, though we are always pleased to examine manuscripts and to pay, when desired by the contributor, for any original articles of exceptional merit that we can use.

SUPERIOR STOCK.

J. F. McIntyre, one of the most extensive producers of honey on the Pacific coast, relates, in Gleanings, some experiences and observations which forcibly set forth the great advantages gained through the development by selection of good working stock. With reference to a certain queen which he had purchased some seven years previously he says:

"I raised about twenty queens from this one to test the stock. The next season was a dry one, and most bees had to be fed to keep them alive; but several colonies out of the twenty filled their supers with honey. Next season, 1895, I bred from the best of these; and in 1896, which was another dry year, this strain again filled their supers when others were starving. I have had many colonies of this strain which I considered ideal bees, and I think they have been improved by breeding from the very best each year. The present year (1899) was a very dry one but I have one colony of this strain that filled two and one-half supers; and I wrote in my record-book, after the number of this hive, that such bees would make a man rich. They are beautiful, pure Italians, light three-banded, queen large and yellow, and very prolific I have raised about 200 young queens from her, and they are all like their mother. Her bees are gentle. She was one year old last July, and has never swarmed; and this strain does not swarm half as much as any other strain in my apiary. It is rare for me to become enthusiastic over a queen; but when a colony shows a marked superiority over 600 others in the same apairy, it is a rare thing."

In view of the foregoing, it is not at all difficult to appreciate the sentiment behind this paragraph, which constitutes a part of the same article:

"This subject of superior stock is now to me the most interesting of any connected with the business."

We beleive that at no time within the history of modern bee-keeping has so much attention been paid to the improvement of our stock as during the past year or two. A number of years ago a great deal was said about "the coming bee," and possible methods of improvement in our stock; but the developments of the present time appear to have taken tangible form, and bid fair to evolve strains vastly superior to those of the past. This is as it should be; and every person interested in bee-culture should emulate the example of Mr. McIntyre, by carefully noting the superior traits of thoroughbred stock, which will manifest itself in individual cases, and perpetuate these desirable qualities by breeding from the queens that have thus surpassed the others. These superior traits quite frequently are observed in hybrid stock, but it is not at all certain that a hybrid mother will transmit to her daughters the excellent points which she herself may have possessed. In breeding from a thoroughbred queen she will be more likely to duplicate herself.

ARE WE BRETHREN?

Apis dorsata has a faithful adherent in the American Bee-Keeper Referring to Dr Mason's comments in the Bee-Keepers' Review, it is not discouraged by the reports that come as to the failures to domesticate the big bee in other countries. It says. "What Australia, Holland or China may want in relation to this matter is of no concern to America. In Australia the paramount question is, "not to secure more honey, but rather to develop a market for that already on hand and now coming in." So the American Bee Keeper can understand that Australians may not want to have more honey gathered.

After all, does not the bee keeper in Australia think, "I'd like to have my crop of honey increased as much as possible, but I don't care to have the entire output increased in proportion?" And will the American Bee-Keeper name the bee-keeper in this country who doesn't think exactly the same thing?—American Bee Journal.

That there exist among us those who seek only to enhance their personal gain for the time being and to discourage public interest and competition, is probably a fact that is to be deplored. Bee keeping shall never be placed upon substantial footing which it is destined to reach through the influence of such persons: and one who would silently meditate as above quoted would be vainly groveling in the shadow of his own selfishness, thereby upsetting the ideas and thwarting the wiser plans of his fraternal friends who are working for his own good.

Our industry is yet in its infancy, and while, to some, our views may appear visionary, we hope the younger generation now living may see the present annual production of honey in the United States increased five fold.

"Calamity?" Not at all! Just such a condition of affairs is obviously necessary to awaken an appreciation of the great possibilities of our industry, and arouse the latent power of its half-hearted adherants to the work of multiplying by ten the present demand for pure honey.

There may be, 'in *Australia*,'' those who thus view our industry from the bottom of a well; but the fewer their numbers in any and all countries the lighter will be the labors of the vastly greater number who are striving earnestly to establish the culture of the honey-bee among the recognized, important and profitable industries of the world.

Australia is today forced to devote some attention to the one branch most neglected in our business—the development of the market—and while the "crushing over-production" may be regarded as a calamity, our only fear is that the present volume of stock on hand is insufficient to bring the happy crisis to the island continent which an added thousand tons would, most likely, do Should a season of failure follow the abundant harvest of last year, Australia's "calamity" will probably consist in a relaxation of the work of its board of exports.

America's most crying need is, more honey and united action in extending home consumption; and this united action can be secured only through individual effort prompted by a fraternal, *unselfish* interest in the general welfare of our pursuit.

◆

The Locust.

This summer I had a very good opportunity to watch the locust tree as bee pasturage, there being several hundreds of this tree within reach. It comes in just when most needed, after fruit bloom and a little before clover. When the bees were working on the cuthbert raspberry—the best variety for pasturage—the locust blossoms opened and the raspberry patches were completely deserted for these trees which roared until dark like swarms and the rank odor of the honey permeated the yard at night but unfortunately the locust does not last more than a week and the bees went back to the raspberries. These two plants are not to be despised as amusement for bees, as I had as much as thirty-five pounds in a single colony from these two sources though of course they may hasten on the swarming impulse. Curiously enough the locust belongs to the same family as the clover. It may perhaps add to the dignity of the bee keepers to know that one of the 420 varieties of this tree, the Acacia Seyal is identified as the Shittah tree of the Bible which supplied Shittim wood.—Cor. Canadian Bee-Journal.

◆

New York honey dealers are endeavoring to secure some of Australia's surplus stock, with which to supply the home demand.

LITERARY NOTES

Good reading for the new year predominates in the January issue of "The Cosmopolitan." Among the sixteen well-known writers who have contributed to its pages are A. T. Quiller-Couch ("Q"), with a stirring bit of fiction entitled "The Lady of the Ship;" John Luther Long, who has furnished a story in a new field, which he entitles "Dizzy Daze;" Kirke La Shelle, who tells of the tricks of "The Theatrical Advance Agent." and Seumas MacManus, who brings forth another of his clever Irish stories under the title of "Pathrick's Proxy."

◆

Honey and Beeswax Market Report.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled; combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1 —All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white. amber and dark, That is, there will be "fancy white," No. 1, dark, etc.

CHICAGO, Jan. 20—We quote best white comb at 15c; an occasional lot of fancy sells at 16c; off grades of white, 12 @ 14c; amber, 10 @ 12c Extracted 8 @ 9c, for fancy white; 7 @ 8c for amber, 6 @ 7c for dark grades. Beeswax 27c.

Receipts are larger and the demand is not as good as it has been. R. A BURNETT & Co.

NEW YORK Jan. 20—There is a steady demand for all grades of Comb Honey. The receipts are very heavy. We quote to day:

Fancy white, 15 @ 16; No. 1, white, 13½ @ 14½c; amber, 11 @ 12c; buckwheat 9 @ 11c.

Extracted Honey held steady at the following prices: California white, 8½ @ 9c; light amber, 8 @ 8½c; white clover, 8½c; amber, 7½c. We are asking for extracted buckwheat. 6¾ to 7c for kegs, and 7 to 7½c for tins. according to quality, but very little trade. Florida extracted honey, 8 @ 8½c; light amber, 7½ @ 8c; amber, 7 @ 7½c. Other grades of southern at 75 to 80c per gallon, according to quality. Beeswax demand a little more active at the following prices: 27 to 28c per ℔. FRANCIS H. LEGGETT & Co.

◆

Let us have your report as to the condition of the bees, as early as possible.

Davenport, Ia., has a new monthly paper called "Poultry, Bees and Fruit."

Send for sample copies of The Bee-Keeper to distribute among your bee-keeping friends.

The Self Culture Magazine ($1.00 a year) with the American Bee-Keeper, $1.00 a year.

After two seasons of failure, Southern California has encouraging prospects for a good honey crop this year.

There will be a joint convention of all bee-keepers' societies of the state of Wisconsin at Madison, Wis., Feb. 7 and 8, at which time the State Association meets. A very interesting program has been arranged.

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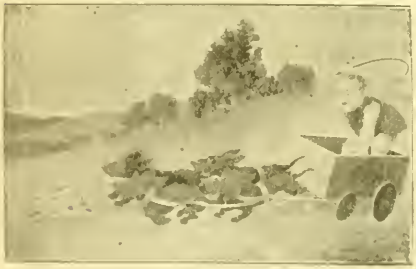

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Bee Keepers' Guide (Prof. A. J. Cook)....	1 00	15c
Langstroth on Honey Bee, rev. (Dadant)..	1 10	15c
Quinby's New Bee-Keeping (Quinby).....	1 40	10c
Thirty Years Among Bees (Alley)........	48	2c
How to Manage Bees (Vandruff)..........	25	5c
Amateur Bee Keeper (Rouse)............	20	5c

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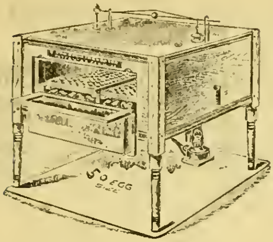

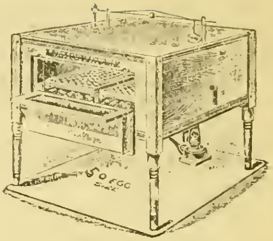

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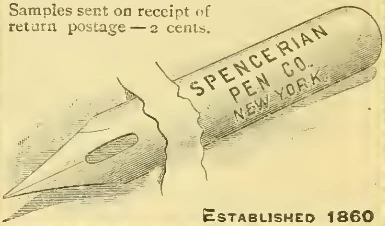
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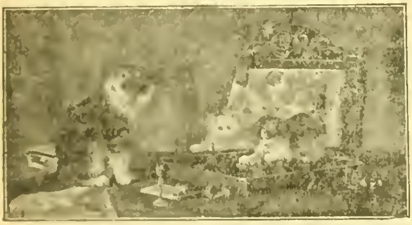

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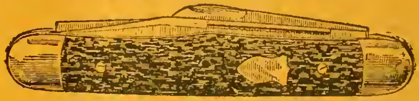

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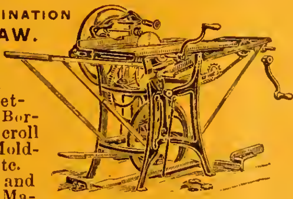

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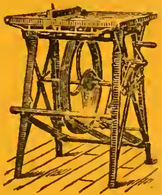

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MARCH

1900

Vol. X

No. 3

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Send at once for new edition of Facts About Bees, which tells all about the Danz. Hive and its advantages. **The A. I. Root Company, Medina, Ohio.**

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Send me

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X MARCH, 1900 No. 3

The February Bee-Keeper.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

BEFORE emphasizing any of the good things in the February number, it is necessary that I call attention to something which I fear Bro. Heath will not call a *good thing*. On page 22, near the middle of 2d Col., in quoting Bro. H., I am made to make him say "quiet movements and *careless* handling," while what he did say was "quiet movements and *careful* handling," and that is as I intended to quote him. Whether the mistake was mine or that of the typo at The Bee-Keeper office, it is no more than fair to Bro. Heath that the matter be corrected, although the average reader would, without doubt, supply "careful" in place of "careless," when reading, in order to make sense of the matter.

TOBACCO STAPLES VS. NAILS.

On page 23, Frank L. Rehn tells us how he holds his bottom-boards temporarily to his hives in making nuclei, by using two long nails. This is very much better than not fastening them at all, and is just the way I used to work before I found out a better plan; therefore I call the nails a good thing for those who have never used any fasteners of any kind when moving hives. But of late I have used what are termed "tobacco staples" which are as much ahead of nails for temporarily holding hives to the bottom-board, or different parts of hives together, as the nails are ahead of not using anything. These staples are nothing more or less than double pointed tacks, on a large scale, the sizes I use being one inch, one and one-fourth inch, and one and one-half inch; the one and one-fourth inch being the size used mostly. In using, place one point against the upper part of the bottom-board and the other point against the bottom part of the hive, using one on each side, when, with one or two light blows with the hammer they are driven in from one-half to two-thirds the length of their points. This draws the bottom-boards up tight against the bottom of the hives and holds them there as would a vise, so that the whole can be picked up together and carried anywhere; into the cellar, loaded on a wagon, etc., just as you would a hive having a fast bottom. When you wish the bottom movable again, just run a screwdriver, chisel, or something of the kind, between the tobacco staple and the hive, give a little pry, and it comes out very easily, and is ready to use again, over and over, as many times as it is needed. These staples can be procured at almost any hardware store, or purchased through those dealing in bee-keepers' supplies. Then they are very convenient in mending any hive or board which may become split, and by driving clear up, the pieces are held together so tightly that the board will split almost as quickly anywhere else as it will in the old place.

COLOR BREEDING.

On page 26, W. H. Pridgen uses these words, "Although much is being said against breeding for color it is evident that those who condemn it are guilty of the same to the extent of keeping up their chosen standard." Here is a point that the advocates of the dark or leather colored Italians have ignored entirely in all of this breeding for color controversy. I claim that the dark Italians have been just as much injured by in-and-in breeding as have the light or golden Italians. In fact, I have had far more worthless bees of the dark strain than I have of the goldens, and I know of no way of accounting for it except that they have been bred too closely toward the dark. All should strive to infuse new "blood" into their apiaries as often as every two or three years, where they are breeding closely along any line. Bro. P. is quite right in believing that we cannot well breed along any desired line for a term of years except we are guided more largely from the color stand-point than from any other, for all breeders know that very little, if any, headway, can be made by taking a colony of what are called "hustlers," which came from no definite pedigree, and trying to secure the desired traits from them, by any selection which can be made, regardless of color. As Bro. P. well says, the queen to give any definite good results "must be a thoroughbred." And the thoroughbred part is very largely a myth, only as it is known from the color standpoint. And for this reason there can be no truer assertion than that made by Bro. P. when he says "As long as bees are kept, color will be one of the main points in making a selection for breeding purposes." And he who argues to the contrary, shows that he has not looked into this breeding problem as closely, and as deeply as he might.

KNOWLEDGE OF OUR LOCALITY.

G. W. Demaree, in finishing up his article, on page 28 says, "profits from the apiary must depend largely on the skill of the apiarist; especially his knowledge of the resources of his locality." If every reader of The Bee-Keeper will ponder over that thought till it is fairly "*burned*" into the mind, he or she will not regret the paltry fifty cents they paid for this paper for the year 1900. Right here is where the larger part of the would-be bee-keepers fail. They do all of their work in the dark as it were, guessing when the harvest of honey is likely to occur, instead of *knowing* to a certainty *just* what flowers produce a surplus, and *just* when those flowers may be expected to open so as to invite the bees to a sumptuous feast. The very first work any person is to do who contemplates keeping bees, or who has bees already, but has paid no attention to these matters, is to secure a thorough knowledge of the time and source of the blossoms which give a yield of nectar. But I think I hear some one saying, how can I secure this knowledge? Very simple matter, but it will take some time. When you find the bees coming in with honey, enough so that the combs are beginning to grow white along the top bars of the frames, by the cells being lengthened out with new wax, then it is time for you to follow the bees to the flowers which are giving this honey or nectar. Go out to the apiary and carefully walk all around it, walking out ten or more rods from any hives, listening intently as you walk, when you will soon find in which direction the bees are going by the sound. Now look into the air, shading the eyes with the hands, if the day is clear, when you will soon see the course the "multitudes are traveling," and having thus seen, "follow the multitudes," the same as you would any multitude going to a show, and after a little you will hear the "merry laughter" as the bees hover about on the flowers which are yielding their sweets to those odor invited guests. Having found this out, make a minute of the flowers, and date of their being visited by the bees, which you will carefully keep for future reference. Do this same thing again when you mistrust that new flowers are yielding nectar, and so continue on till you have a list of all which yield nectar and the time of their opening. Now you have a data on which to base your operations in all the years to come as long as you stay in that location, when you can exhibit your "*skill*" by making all of your operations with the bees conform with this knowledge you have of your location.

Borodino, N. Y., Feb. 10th 1900.

Robbers and Queenless Colonies.

BY M. F. REEVE.

I HAD a recent opportunity of testing the soundness of the theory that a queenless colony is liable to become the prey of "robbers," and that they will hesitate before plundering a colony having a queen. Having an overflowing colony which had a good breeding queen, I concluded to divide, to prevent swarming, early in June. I removed four of the eight frames of honey and brood from the main hive, leaving the queen, and substituted four frames of foundation. The four frames taken out were placed, with adhering bees, in a hive body, and the same plan of alternating pursued. This body with its eight frames was set on top of the old hive and the cover put on. Still the bees were uneasy and made a couple of attempts at swarming. The upper body was then lifted upon a new bottom board with a new cover, the entrance closed with a strip of wire cloth, and moved to a new stand fifty feet distant the bees being imprisoned all day and night until next morning. The wire gauze gave them plenty of ventilation. The wire was removed, and the bees began flying at once. Robbers quickly discovered that the colony had no queen and began raiding it in clouds. A zinc entrance guard was set on, and the inmates made a bold defense behind it, chasing the interlopers away. The same day I sent to Delaware for a virgin queen, which was introduced two days afterwards and adopted at once without any trouble, and ever since that time the garrison has been able to repel all attempts by neighboring foragers to carry out its stores. The robbers were strangers as I easily established by "flouring" them from a dredging box as they swarmed outside of the zinc guards, and then watching the entrances of my six other hives. Not a "floured" bee returned to them.

Rutledge, Pa.

The Dickel vs. Dzierzon Theories.

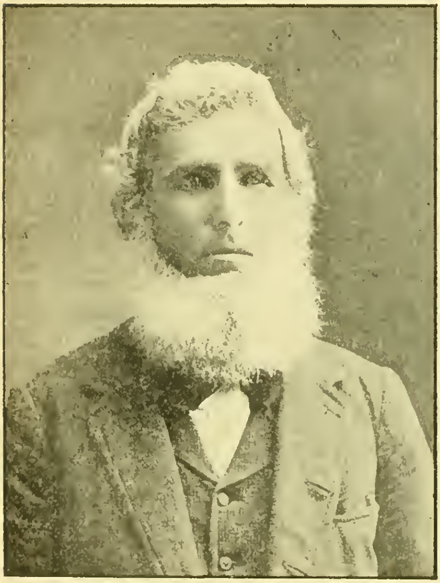
BY C. THEILMANN.

AT a convention of bee-keepers held at Salzburg, Austria, irrefutable facts were brought out by Prof. Dickel in opposition to the fallacious non-sperm, in drone eggs, theory of Dr. Dzierzon.

Prof. Dickel gave the bee-keepers a very simple method by which each might convince himself of the correctness of his premises.

For nearly fifty years the Dzierzon theory, based upon his own observations and supported by Prof. Siebold's microscopical investigations, was that queens possess the ability to lay either an impregnated or unimpregnated egg at will; from the former, queens and workers develop, and from the latter, drones only; and whoever dared to write or say anything to the contrary was either passed unnoticed or laughed at. The American Bee Journal says, quoting from Deutsche Illustrierte Bienenzeitung, "The Dzierzon theory so far stands as solid as a rock, and it will require more proofs than have yet been brought against it to budge it in the least."

The formula given by Prof. Dickel is this: Take eggs from a drone comb, laid by a normal queen, and insert them into worker cells in a colony that has been queenless long enough to become somewhat apathetic. The bees will not accept transferred eggs, but will tear them out. The development of these eggs will show that workers and queens may be produced from drone eggs. Another: Remove from a drone comb all larvæ and replace with just-hatched larvæ from a worker comb, and give the one thus prepared to a colony under the same conditions as before. You will see, then, queens and drones reared from impregnated worker eggs, even after they have hatched out.



C. THEILMANN.

Dzierzon still holds to his theory and says Dickel is wrong. Though I have been convinced since 1883 that bees can and will rear drones from what are known as worker eggs, laid by a normal queen, and during a good flow of honey I can easily cause them to do so at my pleasure—with any swarm. I was first led into the secret of this in July, 1883, when I hived a swarm of full-blooded Cyprians, many workers of which returned to the parent colony, leaving the swarm too weak for the production of comb honey, which was my aim at that time. The next day I united with them a second swarm, but all my efforts to prevent them from waging war upon each other were in vain, and they decamped for parts unknown, while I was engaged in caring for other swarms. The following morning I found the empty hives with two nice pieces of comb about as large as my hand—all worker cells—one of which was stocked with eggs on both sides, as far as the comb was sufficiently drawn out. Soon after I had completed my examination another swarm came out, and was hived upon these frames with the starters of comb that had been deserted the day previous, which they accepted, and went to work with a vigor. About a week later I examined them and found the frames filled with drone comb, except the two patches referred to above. The one containing the eggs now had three queen cells and about 25 drone and 200 to 300 worker pupae, all capped. The drones were all in enlarged worker cells, not one of which had been missed in the distribution of the eggs as far as the brood extended

This convinced me that, while a normal queen never lays drone eggs the first day after swarming, bees can and do produce drones from what are called "worker eggs." To make sure that I was correct in my conclusion, tests were made on a larger scale, as follows:

On July 9, 1899, I prepared two hives with starters in frames, and hived upon them swarms with some of my best one-year old queens. On the 11th a swarm with clipped queen issued; the queen was caged and placed at the entrance of a new hive with starters in the frames, on the old stand, where the bees were allowed to return to their mother. A frame with eggs from the stock colonies was immediately given them; the queen being left at the entrance until sunset, at which time she was taken away and the swarm removed to a new stand; but they became very restless and I returned them to their former position. Upon examination on the 19th I found them entirely destitute of brood and eggs, and another frame with eggs was at once given them. On the 24th four queen cells, two drone larvæ and about 300 worker larvæ were nearly completed.

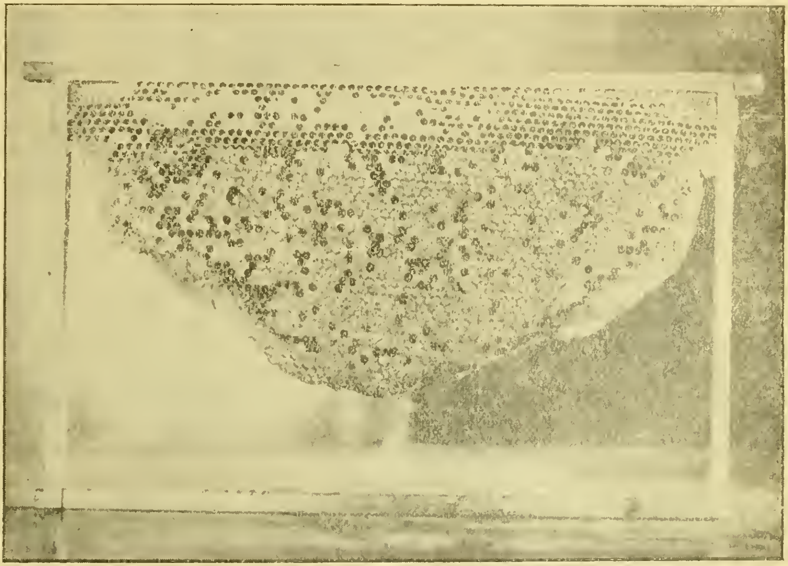
Number 2 also swarmed on the 11th, and was treated in the same way as the first. but did not tear out all the eggs, and on July 24th had nine queen, ten drone and two worker cells all capped. This swarm, like the first, had also changed stands.

Number 3 swarmed July 13th and was given a frame of eggs; their queen was taken away as soon as the bees were all in the hive, but the hive was not removed from the old stand On July 24th they had 14 queen, six drone, and 300 to 400 workers capped.

Number 4 swarmed July 13th, and was treated the same as No. 3, and had 22 queen, 20 drone and about 2,500 worker pupae all capped on the 24th. The picture herewith shown is of the latter. It was taken 11 days after having been given to the bees, and was somewhat mutilated by accident in taking it to the artist. No. 5 swarmed July 14th and was treated the same as number 3 and 4. On July 24th it was found to contain 28 queen, 10 drone and 800 to 900 worker pupae.

As there were no drone cells in any of the combs given these five swarms, the drones reared were in enlarged worker cells and the more convinced me that bees will and do rear drones from what are called "worker eggs."

The idea of a normal queen slipping cogs and dropping stitches, and that young queens occasionally lay drone eggs is purely imaginative, and wholly without foundation according to my carefully conducted experiments.



It is claimed by scientists that, by the use of very delicate instruments, the sperm may be extracted from the egg; but when the operation has been performed these scientific experts dispute among themselves as to whether it has been accomplished; and, indeed, is it any wonder? Just think of it, reader, of the minute atom of the fertilizing agent received by the queen at the time of mating; she is, in the course of her life supposed to divide this into from 500,000 to 800,000 parts. No wonder they disagree among themselves.

That the drone pupae among the workers, in the above mentioned experiments, were positively drones and nothing else, was determined by a very careful examination.

I have not yet experimented in rearing queens from eggs laid in drone cells, but will do so during the coming season, along this same line as laid down in the Dickel theory. This is probably the only sure method by which the problem may be solved; as the only thing for us to do is to properly condition the bees and supply the eggs from the drone cells.

Scientists do not claim that the spermatheca of the queen is replenished naturally, but that, when it is exhausted she becomes useless. Prof. Metzger takes opposing ground upon this question

Theilmanton, Minn., Jan. 26, 1900.

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"Paper Bonnets"

BY SWARTHMORE.

IN the locality about Philadelphia extra protection to colonies wintered out of doors is not absolutely necessary for success, providing the hives are kept perfectly dry and contain ample stores with some obstruction to break the force of prevailing winds. The bees are almost certain to go through the winter in good strength and to build up rapidly in the spring without further consideration.

I have found heavy roofing paper very useful in the apiary both summer and winter— in summer as a sun-bonnet and in winter as a rain coat; in fact, the arrangement has proven so very satisfactory to me that I cannot refrain from giving a detailed description of these "paper bonnets," for the benefit of those of your readers who keep bees in a semi-mild climate.

The paper I use is prepared in resin and is perfectly water-proof, yet easily folded at will without breaking, as tag paper may be. It comes in rolls and costs only a few cents per hundred square feet, in quantity.

As soon as cool weather comes on, I remove the enameled sheet and substitute the carpet (Brussels is the most satisfactory winter covering); also put on absorbent-mat. I then lay over several thicknesses of folded newspapers and cover all with the regular hive lid. Over the top of lid more newspapers are laid to give the roof a rounded shape so as to shed water readily. Then over this is placed a single sheet of the resin-saturated paper cut the exact size of the cover tops. Now fold a large sheet of the water-proof paper over all neatly, somewhat like a carton, and tie it down snugly with a single strand of stout cord, carried around the hive, to bind the edges and the corners of the covering. Thus are my bees prepared for winter.

These "bonnets" are easily removed and should last several seasons if given a coat of roofing paint as soon as they become weather-worn. They are as easily packed away when not in use as are so many sheets of paper when made into a close roll. The smaller sheets are always useful for placing between supers already prepared for the honey flow; or between empty cases and hive bodies left out of doors for any reason whatsoever. These paper sheets are also invaluable for protecting partly-drawn combs in boxes, and I could not get along without them now that I know their sterling worth in the production of comb honey.

During the warm season the "bonnets" are used to protect the bees from the scorching rays of the sun and to keep the boxes clean and the supers warm and dry before and after the mid-summer spell. Of course the extra under covers of newspapers are removed as soon as they are not needed to hold heat in the supers; the oil-cloth is substituted for the mat as soon as active operations begin in the spring.

Swarthmore, Pa.

Rendering Beeswax.

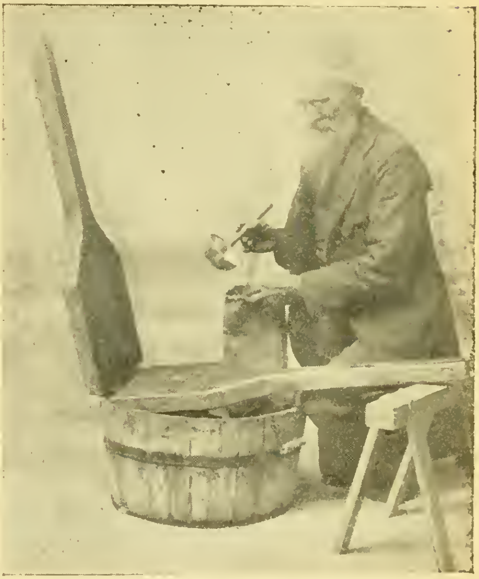
BY F. GREINER.

I WAS very much interested in Mr. Beckwith's method of rendering wax described in the Review. And as I had a quantity of imperfect combs to work up, I concluded I would try the method, my Solar wax extractor not having sufficient capacity. I made a press according to the description given. It is a lever-press, made of two pieces of plank three or four feet in length, hinged together at one end by two strong hinges fitted over the plank properly, the other ends of the plank narrowed down and thus forming the handles by which the press is to be operated. A strong bag is made and the hot mass of melted combs is ladled into it, care being taken not to fill the strainer bag more than half full. The press is now brought into service when the contents of the strainer is pressed down into a flat cake. The press is opened now, that cake doubled over itself and pressed again. Once more the press is opened, the bag and contents turned a quarter way round, doubled over a second time and pressed again, so that the residue finally consists of four equal layers of dry refuse, cocoons, etc. This according to Mr. Beckwith.

In my hands the press did not work quite as well, although I made 150 lbs. of wax with it last season. In the first place, with the three or four feet-long handles I was not able to lay out power enough even when putting my whole weight of 150 lbs. on same. In fact, after I had spliced the handles to twice that length my weight was no more than sufficient. Then in this doubling and quadrupling of the strainer, with its hot contents, I did not have very good luck. The mass would slip and slide, the strainer would burst when it was quadrupled, and so, at last, I gave that up; at least, I could not successfully do any more than fold the bag over once and have it remain in place while pressing it. My own awkwardness may have been to blame, but if so, then I believe there will be many others, who will also fail for a like reason to accomplish what Mr. B. did.

I want to state here that from a set of combs I obtained about two pounds of wax, which is not as well as others have done. The refuse from the strainer seemed to contain still quite a little wax which might have been secured.

The wax, as it comes from the press is not yet in marketable shape and needs remelting and moulding I want to tell the readers of the American Bee-Keeper how I managed this matter:



I. W. BECKWITH AND HIS WAX SQUEEZER.
(Courtesy of Bee-Keepers' Review.)

I happened to have an old 5-gallon oil-can; from it I cut the top and put in a small brass-faucet about three inches above the bottom. The can was then ready for work. It was first filled with water up to within one inch of faucet; when the water was hot, the wax, in its crude state, was added little by little as it kept melting, till the can was nearly full. When all was melted, a cover was put on the dish, moved to the backpart of the stove or the wick of the oil-stove pretty well turned down. My aim now was to keep the melted wax in a quite state for some little time, until the agitation of boiling had subsided. Still I did not want the wax to cool off very much, but give it time that any impurities might settle. After an elapse of about 30 minutes I commenced drawing off the wax, running it into slightly oiled, new tin basins; all of these when full were set to one side and kept covered so that the cooling process might go on slowly, thus preventing the cracking of the cakes. Moulded in new tin the cakes came out much brighter than when using any old rusty basins, as I have done before. I was greatly pleased with the appearance of the wax and so were others. Having some on exhibition at the fair some experienced bee-keepers asked me repeatedly how I had managed my wax, whether I had varnished it, etc. For that reason I make special mention of this point. All wax that would run from the faucet without tipping the can up, came out perfectly clean and none of the cakes, when cool, had any sediment. That which did not run out was allowed to cool in the can, slightly tipping the can back, to leave the faucet above the top surface of the wax. As soon as hardened sufficiently and yet before the wax had become really cold, the slab about an inch thick was taken out and dirt and other impurities were scraped off from the bottom. I melted this cake with the next batch each time and thus managed I had only one small cake of inferior wax in my whole lot of 150 pounds

Naples, N. Y., Jan., 1900.

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That "an apiary is a place where they grow apes," as expressed in the composition of a little school girl, is rather contradicted by one of our amateur subscribers, who says he has found out that "bee-keeping is no monkey business."

"Skies" on Comb Honey Production.

OUR last instructions to Friend Haffins was on the management of swarms. We will now give him a short lesson on the production of comb honey:

To get bees to build comb and store honey in sections is an easy matter, but to produce a really fine article of comb honey is one of the finest points in bee-keeping.

The first step toward scientific comb honey production, is the selection of the bees. Any bee that will gather honey will do for extracted honey, but not so for comb. Only those colonies should be selected that are nearest perfect as comb builders, and whose cappings are the whitest. Only such colonies as these must be used as breeders. No drones must be allowed to fly from any colony, except those having these desirable qualities. No queens must be reared from any but colonies having these qualities.

If this is done persistently, and every queen destroyed, the work of whose progeny falls below the standard you have set, for a few seasons, you will have an apiary of thoroughbred, fancy, comb honey producers—that is, as far as the bees go. But no matter how thoroughly bred the bees, if you are slovenly and careless in your general work with them, or lacking in the details, the product of your apiary will fall below the standard of the fancy class.

Probably the first thing for the beginner ambitious of becoming a first-class comb honey producer, to learn, is the importance of keeping the hives level. Too much stress cannot be laid on this point. If you would have perfectly built comb, you must have your hives perfectly level. You may tip them forward during the winter or spring, but keep them level during the summer.

It matters little what kind of hive is used, so long as it accommodates a suitable surplus arrangement. The surplus receptacle should be arranged to tighten up from the side with follower and wedge, thus firmly holding the sections together, and leaving no room at the joints for propolis.

The next important thing is the liberal use of comb foundation. We believe that it is money well invested to use full sheets of the thinnest make, in the sections. Separators are also indispensable in the production of fancy comb honey. When separators and full sheets of foundation are used the sections are more uniform in their filling and weight, neater in appearance, easier to handle and pack in the shipping cases, more inviting, and command enough better price in the general market to more than pay for foundation and separator.

The next important thing is to know when to put the sections on and when to take them off. Now the old orthodox rule is to put the sections on as soon as the bees begin to whiten the combs along the top bars of the brood nest. Sometimes this rule is right, and sometimes not; but you had better follow it until you have learned by a series of yearly observations when to expect your honey flow from this, and when from that, and then have your sections on just in time to accommodate them. Just as soon as a super of sections is all capped, except the outside row or corner-section, take them off; take the unfinished sections from several supers and put them in one and set them on a colony to be finished. By posting yourself thoroughly on when your honey flows will commence, and the probable duration of each, you can manage so you will not have a great many unfinished sections left at the end of the season.

Another thing is the sections themselves. If you are going to produce first-class, fancy honey, use nothing but No. 1 white sections. Absolute cleanliness and neatness must be the rule used in putting your product on the market. Remove every speck and spot from your sections, as you would a spatter of mud from your Sunday clothes. If you don't, you are leaving a blemish upon your reputation as a fancy comb honey producer.

EBENEZER SKIES.

Convention Notes.

From the Meeting of the Ontario County Bee-Keepers' Association.

Reported by Secretary F. Greiner.

THE Ontario County (N. Y.) Bee-Keepers' Association held their annual meeting in Canandaigua Dec. 14 and 15, 1899. The address of President Marks was attentively listened to. He urged in particular upon those present to take more interest in our meetings and if possible try and interest those who now in apathy stay away.

Since all the local associations may now enjoy the substantial aid of the State through the Bureau of Farmers' Institutes, it seems that a new era is dawning upon us in reference to the bee-keepers' associations. The presence of noted speakers and others from a distance, that may be procured by this aid, always lends a charm and great influence to meetings, and entices and persuades—it is our experience—many a bee-keeping friend to attend these gatherings. President Marks also explained the advantages of selling our honey under the special trade mark and seal of the Association, as had been practiced by several members. He himself has often had call for honey guaranteed by the Association and sealed with their seal.

The first paper read before the convention, entitled "Bees versus Man," composed and delivered by Mrs S. J. Smith of Manchester, N. Y., was appreciated by all present.

Professor F. Benton, Assistant Entomologist of the Agricultural Department, Washington, was the center of attraction and made addresses on both days. He spoke of the functions of differernt organs of the bee and her relationship to agriculture. I make the following notes from his address:

The antennæ of the bee are the seat of smell, are full of pits and hairs, making them very sensitive to touch and may also perform auditory functions. The bee is very particular as to having these organs in the best possible condition, clean and bright. On the threshold of the hive just before the bee leaves for a journey she cleans them by a certain move toward the fore-leg, drawing them through a comb-brush-like contrivance located at the second joint of the leg. Watching a bee when ready to start one generally observes her making this move about as a lazy boy would wipe his eyes before getting out of bed at 8 o'clock in the morning. It seems to be necessary that the antennæ are perfectly bright to do good service.

The body of the bee, and more so the underside, is thickly covered with hairs, interlacing, featherlike, forming compound hairs designed to catch and hold the pollen dust when the bee is visiting the blossoms. On the third joint of each hindleg is located a nine-rowed brush, which assists in brushing the pollen off from the bee's body. The next section higher up above these brushes forms the pollen-basket. The inside of this is covered with curved hair, which serve to hold the pollen while being carried to the hive. The middle leg packs the pollen into the baskets and form the well known pollen-pellets. After a bee enters the hive with a load of pollen she hunts up a cell suitable to receive her load. [Greiner and H. S. Case had observed that a pollen-loaded bee did not at once seek a cell for depositing the pollen, but seemed to first pause for a minute or two and go through with a tremulous or shaking motion for some reason or other, as though she wanted to shake every particle of dust off from her body.] She then inserts the two hindlegs into the cell found and by the two spurs located on the middle legs pries the pollen-pellets lose from the baskets. She does not attend to the packing down of the pollen. Younger bees attend to that, not with their bare feet like the boys in Germany do when putting up sauerkraut, but with their heads. Differently colored pollen is stored indiscriminately although the bees while gathering confine themselves to the pollen of one species of plants.

Meeting the accusation sometimes heard, that bees would injure fruit blossoms or the buckwheat bloom. [It seems strange that in these times of enlightenment, there should any such nonsense find a lodging place in the head of any person; such a head must indeed be very empty. In Buddha, the Indian Bible, written over 3,000 years ago, the following may be found:

"As the bee collects honey and departs
without injuring the flower,
So let him, who is wise, dwell on
earth."

It seems then, that there was a better understanding about the matter 3,000 years ago, than some people now have. —*The Reporter*.] He stated that the anther of every stamen, of which some blossoms have a great many, contains a million or more grains of pollen and but one grain of these was required for the fertilization of one pistil.

Pollen is necessary for both bees and plants; honey is of no use whatever to the plant or blossoms, except indirectly in so far as it serves to attract bees and insects to aid in pollination.

After a short recess the question box was opened and conducted by Prof. Benton.

1st question—Do Italian bees cap their comb honey as white as do the blacks and Carniolans? Answer: No. 2nd question—Is amber honey richer and of better flavor than white? Answer: Questionable. 3rd question—Are we ready to put the seal of the Association on dark honey? Discussed pro and con.

4th question—What is the best way to winter bees, under sealed cover or under quilt and packing? Answer: Quilt and packing. 5th question—How to keep moths out of combs? Answer: Place an empty brood chamber on top of a stack of combs, and therein a dish with a little bisulphide of carbon, then cover up tight; the liquid will transform into gas and kill everything living within the stack of hives. 6th question—Have you used drone traps to control swarming extensively? Answer: No; seem too much of a hindrance to the worker bees.

A paper, read by F. Griener, treated of the comb honey super. Different supers were discussed and exhibited. He prefers the wide-frame super, wants his sections protected on all four sides; he thinks then there will be no section cleaning machine necessary.

Editor York wonders that the bee-keepers of America are being baffled by as small a thing as a section cleaner, when the case may be all together different; at least Greiner imagines that such a thing may not be regarded as essential by the majority of bee-keepers.

On the evening of the first day Prof. Benton gave an illustrated lecture (magic lantern) on the structure of the honey bee, also spoke of the relationship of the bee to agriculture. The lecture was given in the large and commodious school-hall before a mixed audience; it was instructive and interesting and was listened to closely. Many present expressed their pleasure and gratification, among them the principal and professors of the school.

On the second day Mr. Benton related his experience in queen rearing, spoke about shipping and introducing cages, etc. He had experimented with all manner of artificial queen cups The gauze cells were accepted most readily and were made as follows: Little squares of ordinary wire screen were pressed into suitable molds; a wire nail was next pushed through each one from the inside, thus forming a handle by which they could be manipulated. The gauze was then trimmed off with a pair of shears to about the shape and size of a just-started queen-cell, then dipped in hot wax often enough to make each one rather substantial. The cells were fastened to the top bars by pushing the nails into the soft wood after a little royal jelly had been placed into each cell and a young larva. Mr. B. had no trouble to have these cells accepted and built out by the bees. The cells, after the queens had hatched, were gathered up and used again when the occasion demanded it.

In using substitutes for royal jelly the Professor had not been very successful, but had succeeded in transferring larvæ without any jelly.

Mr. Benton pronounced the shipping cage as not well suited for introducing queens, and he favored a cage similar to the one illustrated in Gleanings and the Review about a year ago, made from wire-cloth of rather stiff wires. He described another cage which he had tried. It was made of a wooden disk, perhaps two inches in diameter. A row of holes was punched through, all the way along within one-fourth inch of the periphery. Then wire nails were pushed through the holes, forming a very substantial cage, that would well stand to be pushed part way into the toughest comb. It seemed, however, that worker bees would sometimes reach through the long spaces between the nails and catch hold of the queen's legs before they had become well acquainted. A mutilated queen had thus been sometimes the result.

Among other things there were exhibited several different kinds and shades of honey, in tall, no bee-way sections. The sampling took place in the Webster House dining hall. It so happened that the exhibitor was saved the painful necessity of carrying his case of honey back home again; janitors, editors of the local press and some of the bee-keeping friends, who seemed to take a special liking to this or that kind of the sweet, came in for a share, and so the exhibitor was luckily relieved of his burden.

EXTRACTED.

From the Maine Farmer:

WINTERING BEES IN THE CELLAR.

If the conditions are all right the cellar is the best place to winter bees. The question then arises, what are the proper conditions?

The cellar should be dry and free from filth and decaying vegetation. It should be ventilated often and kept dark. It is not well to have much pounding and noise around the hives. The temperature should be kept even, at about 38 or 40° above zero. The hives should be raised several feet above the bottom of the cellar and kept secure from the work of mice. It is well to have several blankets over the brood nest to absorb moisture, and over these blankets, ample ventilation to carry off the steam. So long as the bees are still they should be profoundly let alone; but when any hive is noisy it should be set outside, on some warm day, when the temperature is 50° or more above zero, and let them have a fly, and then set back.

I put my bees in the cellar about the middle of December and set them out about the middle of March. This can be safely done with my double wall hives; but with the common thin wall hives it would be unsafe to leave them out so late, and put them out so early, unless they have protection. I think my bees are wintering nicely this year for they are profoundly still.

In observing the above conditions I hardly know what it is to lose bees in wintering, and they winter on a small amount of honey.—REV. C. M HERRING.

◆

The secret of successful spring management lies in the careful retention of the animal heat of the colony in the hive. With snug packing, plenty of stores, a good queen, accessible pollen or its substitute, and guarding against the flight of the bees during unfavorable weather, spring losses will be greatly reduced.

AMERICAN BEE-KEEPER

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H. E. HILL, - - - - EDITOR.

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Editorial

Our Spanish exchange, "El Apicultor Chileno," of Chili, has failed to appear for several months. Que tiene, amigos?

Some of our bee-keeping exchanges are so late in arriving each month as to actually be "back numbers" when received.

When anything about the apiary needs doing it is an excellent plan to get the necessary tools and do it. To know that a thing needs doing doesn't help matters.

For the engraving of Mr. Beckwith's wax squeezer shown in this issue, as also for the cut of Mr. W. H. Pridgen which appeared last month, we are indebted to The Bee-Keepers' Review.

The most recent acquisition to our exchange list is the American Farmer Magazine, of Chicago, which is certainly a direct advance in agricultural publications. It is gotten up in the style of our high-class magazines, is profusely illustrated, and the general character of its contents such as to commend it to the cultured rural home

The United States Bee-Keepers' Association and the National Bee-Keepers' Union have been united and the amalgamated society will be known in the future as the "National Bee-Keepers' Association." Bee-Keepers of the United States cannot better serve the interests of our industry than by supporting the new organization.

A commission man who contributed an article to the Bee-Keepers Review complained that he had found some bee-keepers who were very tricky. Somnambulist, in Progressive Bee-Keeping, comments thus in part upon the woes of the commission-man : "It has been a sort of a 'tit for tat' business, the only difference being, I suspect, that the bee-keeper has had much the largest dose "

The United States Bee-Keepers' Association has 400 members and a balance of $131.00 in its treasury One thing is clearly evident in regard to this same association : We are greatly over-estimating the value and importance of it, or else the bee-keepers of the country are very slow to recognize a "good thing." It is hard to be compelled to believe that either is a fact, but such must be the case.

Mr. W. Drake, of Cambridge, England, is said to have in his possession a specimen of honey comb that is hundreds of years old. It was taken from the heart of a giant bog oak which had lain for an indefinite period buried six feet below the surface of a marsh. Bees, it is said, were also found about the base of the aperture from which the perfect specimen of comb was taken.

Mr. Benj. Parks, of Stuart, Fla., a few days since had occasion to visit Fort Pierce, and honored us with a brief call. Mr. P. is one of Florida's progressive and prosperous apiarists and has one of the finest locations on the coast. When Mr. Parks fails to harvest a good crop of honey it is indeed a poor season for Florida bee-keepers. Having said that he "is progressive," it is needless to add that Mr. Parks is a regular reader of the American Bee-Keeper.

A writer in the Bee-Keepers' Review, who is a buyer of honey, having said that moths were found in some of the goods purchased in Colorado, it is now being strongly asserted that the wax moth is unknown in that state. Mr. Aikin, in the same journal, says that combs can stand anywhere in that country and never a moth to bother them. By way of contrast we might say in this connection that in South Florida combs that are left in the extracting room over night are very apt to show webs in the morning, and if left would be completely ruined within a week.

Mr. O. O. Poppleton, the veteran bee-keeper of Iowa, Cuba, Florida, etc., is now quite extensively engaged in migratory bee keeping along the east coast of the latter state, and the conduct of his business is facilitated by the newest in modern appliances. About a year ago Mr. P. had built a commodious transport, which is propelled by a naphtha engine, for use in moving his apiaries from place to place ; and now he "steams" quietly up and down the coast, independent of the winds and weather. In passing Fort Pierce recently Mr. Poppleton stopped off to have a half-hour-chat with the editor, and it was to us a very pleasant event. We shall avail ourself of the first opportunity to show our readers a picture of his new bee-launch.

NECTAR SECRETION AND WHITE CLOVER.

The following note from Dr. Miller will explain itself. As suspected by the doctor, an erroneous idea might easily be gathered from the paragraph in question. As for ourself, we must confess to have misunderstood the intended meaning :

Mr. Editor :—The statement, page 29, "that white clover does not yield nectar until it has been in bloom ten days," may be misunderstood. It does not mean that any one blossom does not yield nectar until it has been in bloom ten days. It does not mean that when a field of white clover is found in bloom the bees will not be working there for ten days. Let me explain : Each year I keep a sharp lookout for the *first* single clover blossom. It may be in some specially favored spot, and there may be only one blossom, or there may be several. About ten days after the first blossom is seen, bees may be expected to be working on clover, unless, indeed, it be one of those seasons when white clover blooms but does not yield honey. C. C. MILLER.

FOUL BROOD IN CUBA.

Very gloomy reports have been made by some of those who have gone to investigate the apicultural situation in Cuba, but the bluest of those that have hitherto arrived are paled by a recent report in the American Bee Journal, from G. Rockenback. The accounts of his experiences, surmises, predictions, etc., are by far the most gloomy that have been wafted from the shores of this tropical isle. He says he has examined about 50 apiaries, every one of which was rotten with foul brood. The stench from some hives when he raised the cover would almost knock him down. All drug treatments utterly failed to cure in that country, and the McEvoy method makes it worse. He has "no doubt but the whole island is rotten from end to end." Reliable information in regard to the apicultural outlook in Cuba is now of interest to bee-keepers everywhere, and it is gratifying to note that resident producers of honey take a much more cheerful view of the situation than the Journal's correspondent, whose article clearly shows that he would not be classed, in the language of the hour, as an "up-to-date bee-keeper."

A GOOD MANGROVE LOCATION.

Last summer when we were looking up a location in the extreme southern portion of Florida, a number of persons to whom we referred for information, mentioned a Frenchman who is located on Key Largo, one of the Florida Keys, as a very successful bee-keeper. The season was then so far advanced that we did not go farther than the Miama river, as the mangrove, which is the only source of honey on the Key, was then in full bloom; but we have often thought of the stories of the great success of this lone Frenchman on the Florida Key.

We recently received a letter from a bee-keeper at Cocoanut Grove, Fla.,—a Mr. D. R. Keyes—who was in quest of a location where he would have more desirable social advantages for himself and family. A brief correspondence followed, and in the course one of Mr. Keyes letters was concluded with this paragraph :

"There is a man on Key Largo who keeps about 125 colonies. He recently stated that from one colony last summer he extracted 63 gallons of honey, and that he can easily average 30 gallons per hive. He received a check not long since for $1200.00, from a New York house, which he said was his returns for one shipment of honey. The trouble on the Keys seems to be that after the three-months flow is over there is little for the bees to live on during the rest of the year, and this man has his in two apiaries."

During the past five years we have received hundreds of letters from all parts of the country,from persons desiring to find a good location for bees in Florida. Sometimes it would appear that everyone is casting a wistful eye this way, and we always endeavor to give honesta dvice in regard to Florida as a bee-keeping country. There are many drawbacks in this, as in all other countries in which we are acquainted, and it matters not how much experience a man may have had in the North, if he decides to locate in the far South, he must again learn bee-keeping. There would be found lots of obstacles on Key Largo, but without having had personal experience, we have good reason to believe that for honey, Key Largo would be found first-class. It should be borne in mind, however, that the insects are very bad, that society is out of the question, and that the hum of bees would often be drowned by the din of the rolling surf, the howling of the wind and the screaming of sea fowl.

THEILMANN CATCHES A SHARK.

Relating to Mr. C. Theilmann whose picture is shown elsewhere in this number of The Bee-Keeper, there is a short story with a long moral, told in a recent issue of the American Bee Journal.

Some three or four years ago there was a nest of swindlers engaged in the produce commission business in Chicago—several "nests" in fact—who succeeded in robbing unsuspecting bee-keepers of their season's crop of honey. Mr. T. shipped 10,346 pounds of comb honey to one of these, doing business under the name of H. C. Bartling & Co., for which he was to receive 11½c per pound, f. o. b. Theilmanton, Minn., one-third payable upon arrival in Chicago, and the remainder in 60 and 90 days. He says:

"I waited about ten days after shipping, and when no money came I went to Chicago, and found that my honey was sold (pretended, or partly hid); I demanded a settlement, when a report was made out, which showed the honey all sold on commission. With the freight charges, cartage and commission deducted form the sales. it netted over $200 less than the cash sale I had made with the firm before the honey was shipped. But I gladly accepted their statement, on which they paid me $250, and promised to pay the rest later on. I got their check certified at their bank, and took further advice from my attorneys, Messrs. Masterson & Haft, then demanded the balance due on the statement, which they refused to pay. Bartling was then arrested, but the justice of the peace dismissed the case. Then Bartling arrested me for stealing the statement his partner gave me. The case was tried before Justice Hoffman, four or five miles out from the center of the city, and was also dismissed. I then was re-arrested for libel, and sued for $11,500, and would have had to go to jail if I had not had a rich friend in Chicago to go on my bond. At the same time Bartling was sued for the balance of his statement before the circuit court, which ended with a decision and a judgment for $711.80 against Bartling. He asked for a new trial, which was granted, with the result that the judgment stood good."

Bartling later appealed the case to the appellate and supreme court of the state of Illinois, but the rulings of the lower courts were in each instance sustained, and the gentleman (?) who sought to luxuriate in the great windy, and wicked city upon the proceeds of a country bee-keepers' labor had to choose between paying up or going to jail. Mr. Theilmann says that he decided to do the former, and accordingly settled on Jan. 16, 1900.

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LITERARY NOTES

Outing, the apostle of fresh air and sunshine, of healthful exercise and exhilarating sports, defies in its March issue, the conventional aspects of winter and dispels its influence. Whilst other publications are rending the feelings with human slaughter in South Africa, it presents the peaceful landscape and the ways of "Big Game in Matabeleland," its forests, its flora and its fauna, with illustrations that are a revelation. It follows the "leaping Tuna" in our Pacific Waters; describes the "Irish Wolf Hound," destined to play a notable part in ridding the Northwest of a scourge. Takes its Golfing readers around "The Links of the Far West," its aquatic devotees rowing over "The Pleasant Courses of San Francisco Bay," and its Cyclists on an "Easter Trip through France." Tells of the doughty deeds on the track and field in "Wonderful Athletic Performances," gives a birdseye view, of "Match Day on the St. Andrew's Links of Old Scotia," and takes its heroine in fiction through a Skiing adventure worthy of the title, "A Modern Cinderella."

Its monthly Review of our sports rings with the Skaters' flying feet, the Curlers' broom, the clang of Ice Hockey and the swift whirl of Ice Yachtsmen, whilst keeping track of the trotter, the Sportsman at the Shows and the Fisherman preparing for his spring excursions.

Its artists, imbued with the true spirit of the publication, are happy and skillful exponents of it.

◆

Honey and Beeswax Market Report.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark, That is, there will be "fancy white," No. 1, dark, etc.

OMAHA, Feb. 19.—The demand for honey is fair but steady; light supply. Price of comb 14½ @ 15c per pound; extracted, 8 @ 8½c per pound. No supply. PEYCKE BROS.

CHICAGO, Feb. 19.—The demand for honey is limited to actual want. The supply is equal to if not in excess of the demand. Price of white comb 15c per pound; Dark 10c per pound; White extracted 9c per pound; Dark extracted 6 @ 8c per pound. There is a good demand for beeswax at 28c per pound. Supply light. There is no demand for lots of honey but a little trade in a peddling way. Comb honey of the choice grades is selling at steady prices, and there is not too much of it.

R. A. BURNETT & CO.,
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NEW YORK, Feb. 24.—The demand is fairly good for comb honey; quiet on extracted. There is plenty of extracted honey on the market, but very little comb. Price of dark comb honey 9 @ 11c; white 11 @ 15c per pound. Extracted, 6 @ 8½c per pound Fair demand for beeswax. Moderate supply. Prices 27 @ 28c per pound.

HILDRETH & SEGELKEN.

KANSAS CITY, Feb. 19.—There is a good demand for both comb and extracted honey. Fair supply of extracted. Price of comb 12½ @ 15c per pound. Extracted, 7 @ 8c per pound. Good demand for beeswax at 22 @ 25c per pound. There is very little fancy or No. 1 comb honey on the market C. C. CLEMMONS & Co.

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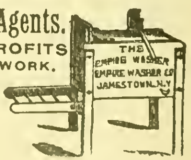

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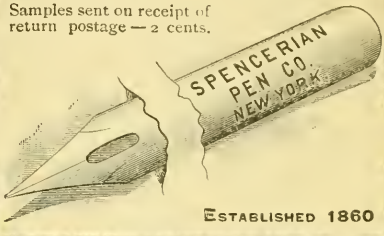

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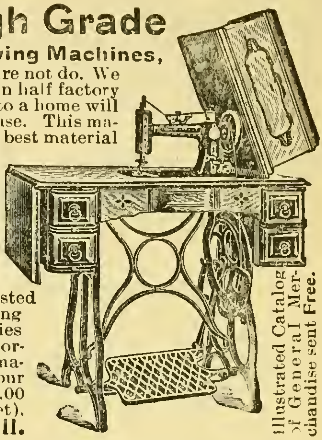

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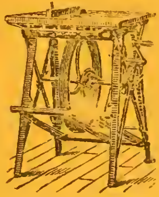

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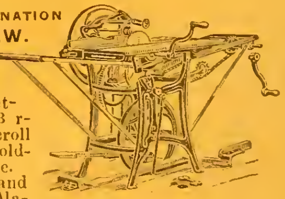

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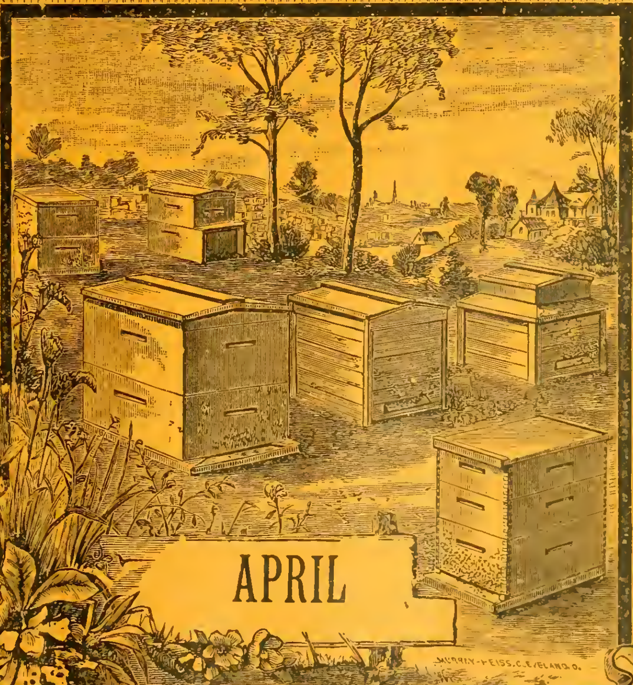
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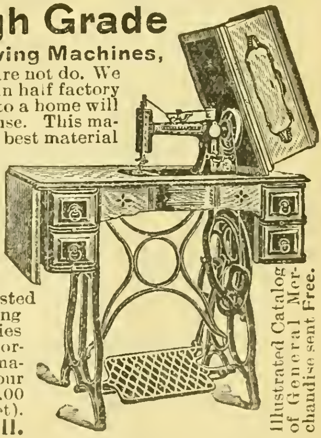

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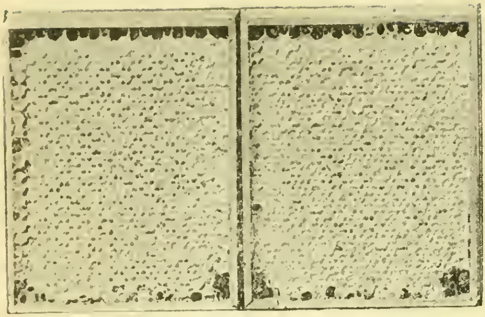

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X APRIL, 1900 No. 4

NON-SWARMING EXPERIMENTS.

Reply to Mr. Doolittle's Request for Information.

BY "SWARTHMORE."

THAT master bee-keeper, Doolittle, having done me the honor to review my notes in a recent issue of THE BEE-KEEPER, I now venture a reply with fear and trembling:

Mr. Doolittle asks why I do not "turn the old queen back onto the eight or nine combs again, by quietly removing the zinc, instead of removing the frame and introducing a young queen or a ripe cell," in the method spoken of to prevent swarming?

I remove the old queen for the reason that should she be allowed to run at large again on the combs of that hive the bees would soon prepare to swarm: when, if a young queen or a cell is introduced instead, there will be little danger of a swarm from that colony at all that year. Then besides, bees are apt to work harder with a fresh young queen present—with me, they are especially active soon after the makings of a new queen are given them. Then again, the honey caught in the frames is sooner boosted up into the boxes when a young queen needs room for her eggs.

I have never destroyed a *good* queen, even if past two years of age, for the reason that I consider it a bit of extravagance to do so and an act of heartlessness to end the life of any passable queen. But, on the other hand, I would pinch her in a jiffy if she should happen to show the slightest symptoms of failing.

In a colony of moderate strength a two-year-old can do no harm providing she continues a prolific layer and does not produce too many drones, therefore I keep my older queens in colonies of moderate strength and draw on them often for brood and bees to augment the strength of my actual working colonies. I never disturb the internal arrangements of my working colonies (having young queens) so long as external appearances are satisfactory to me.

It is certainly folly to go to all the trouble and expense of equipping colonies of only moderate strength with honey bees; the bees will seldom occupy them with a will. It is far better to work half the number of hives in double strength than double the number in half strength. By the first-named plan the labor is lessened and the honey is increased, both in quantity and quality of finish— half-filled boxes reduced to a more pleasing small number.

If by any plan the apiarist can take from two good sized colonies the entire working force of each and throw the bees together directly into one set of honey boxes, just at the opening of the flow, the result will be amazing!

The U. D. system provides for the

above condition; it also provides for re-queening the colonies each year.

I do not wish Mr. Doolittle to understand that the U. D. system can be inaugurated in "one day." The point is, after these methods are once in working order, one day's time will suffice to prepare a yard of one hundred colonies for box honey gathering—sans the anxiety caused by constant fear of swarming and its disastrous results.

I did not agree to give a detailed expose of this method until after I had tested it another season; but, if I find I can safely do so sooner, shall certainly write it all out for THE BEE-KEEPER.

It would aid me in arriving at certain conclusions if bee-keepers at large would do me the favor to follow the few directions given below and report results as soon as possible:

Tier two colonies, placing between the hives a honey board (at least one-half inch thick) provided with bee-spaces on both sides of the board; have the side cleats nailed fast and the end cleats removable and interchangeable. Cut four one-inch auger holes through this board (one in each corner) and cover said holes with wire cloth on *both* sides. (These holes are to equalize the heat and to similize the scent of the two colonies.)

Allow the bees in the lower colony to fly from the regular hive entrance, below, as usual; remove the upper cleat in the honey-board, at the rear, to provide an entrance to the upper hive. Result: The lower colony will use the regular bottom board entrance and the upper colony will appropriate the entrance provided at the opposite end, by the removal of the upper cleat of the honey-board.

A few days previous to swarming, or as soon as hanging-out and loafing is evident—or 10 to 15 days previous to the white honey flow—confine the queen in the upper hive on a single comb at one side of the hive, behind perforated metal, until the brood in the remaining eight or nine combs has passed the royal age. At the end of 10 to 12 days remove comb and queen to a nucleus hive, filling the space left with an empty comb or a sheet of foundation; push a queen cell down between the frames, put on the honey boxes and close the hive tight and warm. On the afternoon following this operation remove the upper cleat in the front end of the honey-board and close the entrance to the hive below with a triangular bee escape, whose apex comes well up to the entrance just provided directly above, and thus compel the gathering force of the lower colony to enter the upper hive, augmenting the force of field workers there. The lower colony will be drained of flying bees to the advantage of the upper colony now equipped with boxes having full sheets of foundation. In three days remove the triangular escape and plug the bottom entrance entirely; cut a small hole through one side cleat of the honey-board into the lower hive; this entrance the young bees in that compartment will soon appropriate.

If the honey flow continues, at the end of 10 days plug this last entrance with an escape cone and open another the same size just above, into the upper hive, to further augment the working force of the upper colony, which by this time should have a young laying queen on the combs. Watch the honey boxes and provide plenty of super room.

Swarthmore, Pa.

A CRIPPLED QUEEN.

Her Method of Depositing Eggs and the Conclusions of the Observer.

BY CHAS. H. PETERSON.

I WISH to take a little space in your valuable paper to tell of a little experience I had last spring in seeing a queen bee deposit eggs in the cells; and to my mind the experience proved that the queen lays drone or worker eggs at will and that she can fertilize the worker eggs without backing into the cell as some claim she must.

In May, 1899, as I was looking for queens in my apiary, I came to a colony and, upon taking out the brood comb, I discovered that the eggs were deposited in a peculiar shape. Some were clinging to the side of the cell while others were in their proper place, at the bottom. Upon seeing the position of the eggs I became anxious to see the queen. On finding her I noticed that she had been in a battle royal at some previous time and had lost most of her legs on the right side. She laid five or six eggs while I was holding the frame, and in no case did she back into the cell to lay, but crawled directly over it and dropped the egg into the cell, and hence the position of the eggs.

At this time there was no drone brood in the hive; all apparently worker brood. I also saw some of her brood that had just hatched, and they were as perfect as any young workers I ever saw. The queen being a cripple, it was impossible for her to back into the cells as other queens do, but had to deposit her eggs as stated above.

The point I wish to make is this: That the size of the cell makes no difference as to the queen laying drone or worker eggs, and that she fertilizes the eggs at her will.

Crary Mills, N.Y.

❧

PROLIFICACY.

Is it an Inherent Quality, or Determined by the Influence of the Workers Upon the Queen?

BY W. H. PRIDGEN.

DOES a queen use her own sweet pleasure in the matter of laying, as seems to be the prevailing idea, or does she simply respond to the wish of the workers in depositing the kind and quantity of eggs, when and where wanted?

The workers control in all things, and the queen fills the position of an indispensable and highly respected servant rather than that of a supreme ruler.

Exchange places with Italian and German queens early in the spring—the Germans being naturally earlier breeders—and note the results. The black bees will proceed with brood rearing as though nothing had happened, while the Italians will pursue the even tenor of their ways. Italian queens mated to black drones have the propensity for early breeding transmitted to their offspring only, their prolificness not being affected by the mating; but still such bees are famous for their early and rapid breeding, and almost invariably come out ahead of their thoroughbred cousins in this respect. Surely the difference must be due to the desires of the workers, and not the will of the queens.

The same holds good in swapping queens of the same race or strain all purely mated where the difference is due to varying numerical strength or amount of stores present; there being no perceptible difference in the progress of either colony caused by the change.

Thus far we are only considering good queens and energetic bees with varying characteristics and conditions, some of which will be in the lead one season and others another; those reaping the harvest that are in the right conditions as to both brood and bees at the beginning of the flow, which also varies in different seasons. Of course there are worthless queens and bees, and industrious bees cannot change an unprolific queen to a good one and neither can a good queen cause a marked difference in the building up or progress of an inferior colony until her bees predominate.

Whether the fault is in the queen herself or her offspring, or both, the final results are the same and she should not be tolerated; but usually the difficulty is in deciding these things before a queen is well advanced in age, and especially if with other than her own bees.

In early spring is the best time to carefully note the general conditions of different colonies as to strength and stores and watch their progress as the season advances, having the queens all the while with their own bees.

Permanent improvements come slowly, being the results of persistent efforts and the ability to make wise selections, which each bee-keeper should be able to do, as well as being sufficiently skilled in queen rearing to perpetuate the desirable qualities of faithful old mothers ready to pass off the stage of action.

Creek, N. C., March 1, 1900.

* * *

THE MARCH BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

THE March number of THE AMERICAN BEE-KEEPER has just reached me, and as usual, it has its face washed, hair combed, and looks as bright and happy as it is possible for a bee paper to look. If a bright, cheerful look has anything to do with securing and keeping subscribers, I prophesy an increase in the subscription list for our "Empire State" bee paper. And it has seemed to me, that of late, all of the American bee papers have had a smiling appearance, with clean faces and a brighter appearance than was that in days of yore. And I know this state of things will continue so long as reader, writer and publisher work together, as they should, for the good of the whole fraternity. May it always be so!

A ZINC ENTRANCE GUARD TO PROTECT FROM ROBBERS.

On page 43 M. F. Reeve tells us how robber bees found the queenless half of his divided colony and went to "raiding it in clouds." This proves to him the "soundness of the theory that a queenless colony is liable to become the prey of robbers." While there is plenty of proof that queenless colonies are sought out by robbers, and all should understand that where any colony is known to be queenless, all precaution should be taken against their being robbed, yet had Mr. Reeve left the queenless part of the division which he made, on the old stand, *he* would not have had the experience which he did. As he manipulated the queenless half, he placed them in just the condition to attract robber bees, by first placing the hive top of the old one till they had "made a couple of attempts at swarming," thus drawing off the most of the bees over sixteen days old back into the old colony, when he closed the entrance with wire cloth and moved this queenless and "defenseless" part of his colony fifty feet away. This threw the colony entirely out of a normal condition and placed it in just the condition to invite robbers the first day, and had he been watching during that first day he would have found plenty of robbing going on, if I am not greatly mistaken, without a single robber bee entering the hive. How was this done? The inside bees, by the commotion resulting from their abnormal condition, were caused to take honey till their honey sacs were filled, when, finding themselves prisoners, they were ready to give of this honey to any bee which would take it, while the scent issuing from these confined bees drew outsiders to the place where they could secure honey from the prisoners. And this accounts for the clouds of raiding bees which were on hand the next morning after the wire cloth was removed. Under very similar conditions I have had all the honey carried from a hive without a single robber bee entering it at all. I have given this so that the many readers of THE AMERICAN BEE-KEEPER may not be caught by being led into dividing colonies the way

Mr. Reeve did, nor by starting robbing through wire cloth, as can generally be done by managing as he did. But the *good* thing that I wish to bring out of Bro. Reeves' article was that "zinc entrance guard" which caused those demoralized bees to make a "bold defense behind it," thus driving "the interlopers away." Robber bees do not like to squeeze through any hole when there are defenders behind such hole or holes ready to seize them while they are squeezing through, or immediately after they are through and while squeezing out again. And for this reason a piece of perforated zinc placed at the front of an "awning" of wood which juts out from one to two inches from the hive in front of the entrance, is an admirable thing to use for the prevention of robbing or to suppress robbing after it has started. As soon as it is placed in front of the entrance, the robbers will all be seen trying to get in where the awning comes up against the hive, rather than out where the perforated metal is; while the loaded robber bees which are in, and the hive bees, go out from the perforated metal, and the hive bees go in there. That one thing brought out by Mr. Reeve is worth more than the price of this paper one year to any bee-keeper who has not used it before, and for this reason I have used a large share of the space allotted me, in making it, and the robbing in confinement matter plain: or rather in trying to make it plain.

"RENDERING BEESWAX."

That article by F. Greiner, found on pages 47-48, regarding rendering beeswax is well worth a careful perusal, for in it are some exceedingly good things, not the least of which is that in caking wax new bright tin should be used, if you wish wax of nice color and appearance. Then his oil-can, faucet arrangement is fine, for by thus being able to draw off the melted wax, after it has stood in a molten condition for one or two hours, so that no sediment or scum shall appear with the wax, an article can be obtained which will give joy to the one producing it. But to my mind the press part matter can be improved upon, where wax is to be gotten out in a wholesale way by the hot water process. Take a caldron or any other kettle that will hold five or more pails, and fill half full of water, placing the same over the fire. While the water is getting hot put your combs and wax into the "strong bag," used by Messrs. Beckwith & Grinder, or as much of it as you can get in, tying the mouth. Now put it in the kettle of water, and with a hoe work the contents of the bag till all is melted and much of the wax worked out. If all of the old comb was not got in at first, draw the mouth of bag to top of water and side of kettle, untie and put in again, and so on till all is in, working with the hoe each time. Now bring bag to top again and tie as close as possible to residue in bag. Previous to this you should have fitted a suitable sized piece of plank to the bottom of the kettle, nailing this piece, after fitting, to the bottom of a standard of a suitable size and length, this standard having the upper end fitted or hinged to a 4x4 scantling twelve to sixteen feet long. Now fasten a log chain to the ears or bail of the kettle, having it go over the end of the scantling, near which the standard is hinged. Next place the plank fitted to the bottom of the kettle on the bag of refuse, then hinge or fasten the standard to the scantling so that a powerful fulcrum is made of the standard when you put your weight on the long end of the scantling, which is now turned into a lever. Go gently at first, using a rocking motion on the lever, bringing more and more power to bear on it, till you think you have given all the pressure the bag will stand. When this is done, hang a weight on the end of the scantling where you had put on the pressure, and leave the thing to cool off till the next morning. The next morning you will find the wax all on top in a hardened cake, loose from the sides of the kettle, when you can break it to pieces putting it through the oil can purifying process, given by Mr. Greiner., Take out the bag, and if you have done the work as you should, not a *particle* of wax will be found remaining in the refuse. Given very briefly, this is the plan I have used in getting out wax where I have enough old comb to make a wholesale affair of the matter. With only a moderate amount, or with the general accumulation from an apiary of 100 to 150 colonies, I prefer the solar wax extractor to anything else.

"EBENEZER SKIES."

Wonder who "Ebenezer Skies" is? That must be a *nom de plume* for we should have heard from a man who could put the pith of comb honey production in so small a space as he does it on pages 48 and 49, before, if he were writing over his real name. But whether it is a *nom de plume* or otherwise, his article tells all there is in comb honey production in the shortest, or nut-shell space, I ever saw it, and those two columns will bear reading one, two, three, four, five and six times, in as many days, till each part touched is thoroughly stamped upon the memory. And not the least part is that of the right kind of *bees* for the production of comb honey. Bees which will not produce comb to perfection nor cap the cells whitely (and the majority of the bees in the country today will *not* do this) are not the bees for successful comb honey production. Weed the "scrubs" out of your apiary as carefully as the best dairyman does from his herd of cows, till you have what you want. Don't say it cannot be done—it *can* be done; but it takes time and patience, and unless you can use these you are of little account in the ranks of bee-keepers. Then those *level* hives. Did you note that? Go into the apiaries of the land; look at the hives "sprawling" all about! Is it any wonder so many complain about combs attached to separators? But space forbids writing more at this time. Read that article the seventh time, for there is "*lots*" in it.

Borodino, N.Y., March 10, 1900.

A FIGHT WITH BEES.

THE following experience, from the *Youth's Companion*, might prove valuable as an acquisition to the available capital of the opponents of *Apis dorsata*. There is but little doubt that the bee which figured in the episode was *dorsata*; and by simply clipping off the two final paragraphs the story might be used with good effect:

Mr. HughClifford gives in Blackwood's Magazine a realistic account of a fight with bees. It was in the interior of the state of Penang, in the Malay Peninsula, and took place some nine years ago. Mr. Clifford was an old jungle traveler, but on this particular journey he met with a new experience.

The man who was leading the way stopped suddenly, and pointed to something ahead. They were standing by a narrow creek with steep banks, and on the opposite bank, about half a dozen yards distant, was a patch of black and yellow peculiarly blended. It had a strange, furry appearance, with a sort of restless shimmer.

Suddenly the patch rose like a cheap black-and-yellow railway rug tossed upward by the wind. A humming sound accompanied its flight, and a second later it had precipitated itself upon the travelers, a furious flight of revengeful bees. The men turned and fled. Mr. Clifford says:

"I broke headlong through my frightened followers, tore out of the little belt of jungle and sprinted across a patch of short grass. For a moment I believed that I had given the enemy the slip, and I turned to watch my people, who, with burdens thrown down, came tumbling out of cover, beating the air and screaming lustily.

"The next moment I was again in flight. I pulled my large felt hat from my head and threshed around with it. Still the bees came on, settling upon my flannel shirt and my coarse jungle trousers, and stinging my face and hands and arms mercilessly.

"I was panting for breath, sweating at every pore, and beginning to feel something akin to real fear, when I saw the glistening waters of the Rengai river. I shouted to my howling men 'Take to the water!' and plunged in.

"My Malays came helter-skelter, and with us came the army of bees, stinging as if for life. I was thoroughly winded when I took to the water, and it was impossible to dive for more than a few seconds. When I came to the surface they were still there, and I was driven back more than once with panting, sobbing breath. My lungs were bursting and my heart leaping like a wild thing. The possibility of having to choose between death by drowning and death by stinging seemed not remote.

"Then I heard my boatman call 'Throw a bough for them to land on!' I swam to the shore, broke off a bough and threw it on the surface of the stream, my men doing the same. Then I dived again. When I came up no more bees attacked me and I saw half a dozen branches floating down the stream covered with a struggling mass of insects."

With hands like boxing gloves and heads like inflated footballs, the party limped across to the village. Half an hour later one of the number came in—uninjured. He had seen the bees coming and had sat down to await the assault. They covered him from head to foot, but as he offered no resistance, they did not sting him.

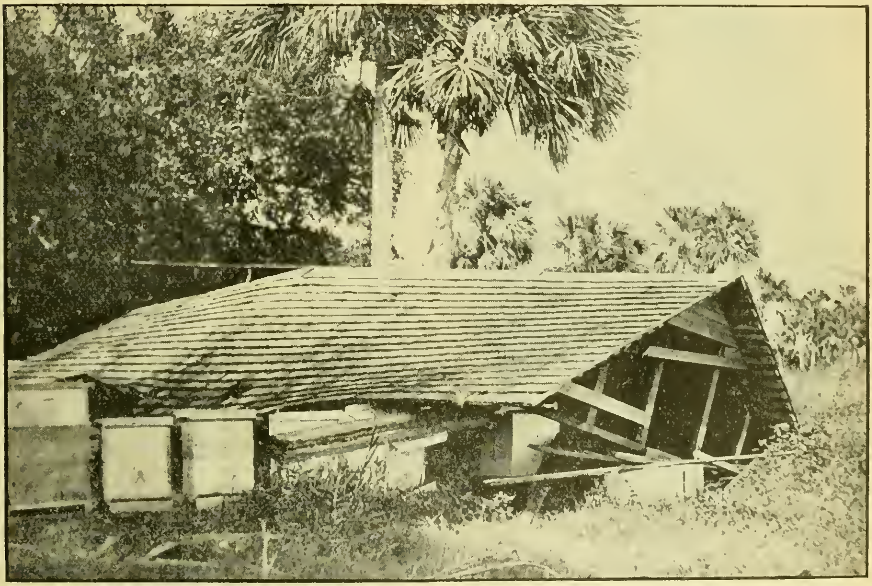
"I felt," says Mr. Clifford, "uncommonly foolish as he told of his proceeding. It was anything but agreeable to think that we had had our run, our fight, our suffocation under water, and the pains we were enduring, all for nothing—that we might have avoided them all by simply sitting still."

* * *

Read our clubbing list on another page.

BEES IN A HURRICANE.

In our issue for September, 1899, we gave a brief account of the visit to our coast, on August 15th, of a West Indian hurricane, which pretty thoroughly dispelled the mosquitoes for the time being and tried its hand at manipulating bees. One view of its handiwork was presented, with a promise of more. The present number affords the first opportunity we have had to fulfill the promise.



AFTER THE SQUALL.

INTRODUCING A QUEEN.

The Method Practiced by One Subscriber.

BY J. W. TEFFT.

Place in hive four empty combs; on each side of these a frame of honey and a division board. Upon these place the caged queen in such a way that the bees may have access to the candy in the cage. Cover with enameled cloth and chaff cushion.

Prepare a second hive in the same

manner as above, and place in it the queen, comb and adhering bees from a strong colony which I will call No. 3. Now take the combs one at a time from No. 3 and shake the bees from them, first in front of No. 1 and then in front of No. 2 and so on until all the frames have been removed, when all combs containing brood are to be replaced in the hive from which they were taken. See that they have some honey also.

J. W. TEFFT.

In this way all old field-bees will return to the old stand and there will be enough of them to rear a queen and care for the brood, while there will be only young bees in Nos. 1 and 2, which will release the queen. In this way you make a sure thing of introducing a valuable queen. At the same time you save the old queen, who will build up strong for winter, while No. 3 will start queen cells—all of which should be cut out on the eighth day and eggs given from No. 1 to rear a new queen from. She will be a half-breed and may prove a superior queen. The above plan never fails. It is the old bees that kill a queen—the young bees never do that, and by this method none but young bees stay with the caged queen.

Last season, just as I was about to extract, I received a present of two beautiful queens from Mr. Henry Alley, which I introduced as above stated, while removing the honey to the extracting house. The two old colonies were very strong in bees and honey, each hive containing 26 L frames, from which I took about 200 pounds of honey and at the same time made an increase of 200 per cent.

South Wales, N.Y.

[Inasmuch as Mr. Tefft is a bee-keeper of long experience, whose work has been attended with success, we are led to surmise that he sees some advantage in the method advocated, which he failed to state. That the chances for a queen's acceptance are better with young than with old bees, is everywhere admitted ; but wherein lies the virtue in the alternate shaking of frames before two hives, is not apparent. Would not the introduction have been as well accomplished—and on the same principle—had Mr. Tefft prepared hive No. 1 as stated, and then simply have shaken the bees from a half of the combs of No. 3? Any further division of colonies, or other apiary work, is another subject, having no bearing whatever upon the introduction of a queen in question; and tends only to complicate the instructions, should any one desire to test the plan. Another point which remains a trifle obscure is, why the queen, which Mr. Tefft proposes to rear in No. 3 "will be a half-breed." Would not such an assertion be on a par with the statement that if an egg of pure leghorn stock were hatched by a red game hen, the chick would be a half-breed? It cannot be that Mr. Tefft has succeeded in clearly expressing himself on this point.—EDITOR.]

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H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

The Bureau of Forestry of Ontario is laboring zealously to effect the reforestation of the lands of that province. Those interested should see to it that the linden receives the recognition to which it is entitled. The maple is a valuable and beautiful tree, but there are also others no less so.

Mr. John F. Crowder, Fresno, Cal., according to the Tulare *Advance*, has about three thousand colonies of bees; and the Advance thinks Mr. Crowder is therefore the most extensive bee-keeper in Central California. If any one man owns and controls a greater number of colonies than three thousand, "where in the world" is he; and "what might his name be?"

The *Western Bee-keeper*, we regret to learn, has joined the silent majority. We hailed its advent with sincere wishes for success, and now as sincerely regret its demise. The bee-keeping fraternity stands, no doubt, more greatly in need of other things than an increased list of publications; but the recognition, good-will and charity of the established journals are due the honest efforts of any brother; and such courtesies cost the donor but little.

Prof. C. F. Hodge, in *Gleanings*, minutely details some observations wherein a virgin queen was seen to make two successive flights, each being successful. The second, which occurred fifteen minutes after her return to the hive, probably being occasioned by the removal of the male appendages from the oviduct, by the bees, which act he witnessed in both instances. These and other interesting notes were taken by the professor during his vacation, by the use of a miniature colony on a single section of comb enclosed in a glass box. This, so far as we know, is the first evidence to be adduced that a second mating ever occurs.

Rambler, in *Gleanings*, says they have had but three good honey seasons during the nine years that he has been in California. While his faith in the future of the bee industry there appears to be yet unshaken, he accounts for the large yields which have given California the reputation of having produced the largest crop of honey of any state in the union by illustrating the fact that the area of that state is more than equal to that of New York, New Jersey, Connecticut, Massachusetts, New Hampshire, Maine, Vermont, Delaware and Ohio. No doubt if all these states were combined in one, they would, one year with another, record a larger yield of honey than their western competitor.

AN IMPROVEMENT IN SMOKERS.

Mr. T. F. Bingham, the urbane and enterprising manufacturer of bee-smokers, is out with something new this season. His well-known and deservedly popular line of smokers are now being made, for those who desire something especially nice and serviceable, with stove and nozzle of sheet brass. This is unquestionably an advance step in the smoker line, and will be appreciated by those who have heretofore experienced the loss of an otherwise good smoker by the ravages of rust, where the coating of tin had been burned from the barrel. When moving from place to place upon the salt water a tin smoker is especially short lived, and we became convinced some time ago of the necessity of some material not affected by rust, and as a result have for several years been using a smoker made especially for us of copper, and find the difficulty entirely overcome. The brass being stiffer and somewhat cheaper, it will doubtless prove equally if not *more* satisfactory, and we do not hesitate to commend the new article to those contemplating the purchase of a new smoker. In addition to the superior quality of the material, as stated, the three larger sizes of the Bingham line for 1900 are fitted with a hinged nozzle. A crescent-shaped groove has also been neatly turned out of either side of the bellows, which adds greatly to the convenience and comfort of the operator, as the thumb and fingers fit nicely into the depression and relieve the necessity of a constant grip.

GRANULATED HONEY.

Bee-keepers generally throughout the country appear to be awakening to the importance of some educational work among the masses in regard to extracted honey. There is indeed a degree of ignorance prevalent in the land regarding the nature, care and use of honey, both comb and extracted, that is amazing ; but the particular point that is at present engaging the attention of the producer is that of educating the people to the use of the candied extracted article.

It is quite generally believed that granulated honey is adulterated—that the granules in the liquid is an adulterant—and the majority of retail dealers, sharing this ignorance, are incapable of rendering a true explanation to the prospective buyer, but he will instead most likely apply the force of his argument to the deliverance of his own untarnished name from the menacing stigma, laying particular stress upon his personal good faith and innocence in buying the "stuff." This will, of course, be supplemented with an apology for having offered it to his esteemed patron. This may appear somewhat overdrawn; but we have witnessed just such an instance.

It does seem just a trifle strange that in six thousand years (or sixty thousand, as the case may be) people have not learned that honey will granulate in cold weather, and that they are yet afraid of this most wholesome, pure and delicious food after the change has taken place.

It behooves producers of extracted honey to work earnestly to disabuse the public mind of this popular error, and to disseminate a knowledge of the ease with which honey may be restored to its liquid state when preferred in that condition. Granulated honey is very much preferred by many to that in liquid form, and some of our western producers have so educated the trade that their goods are not looked for in any other way—indeed their honey is not put upon the market until after it has granulated. Specific instructions for liquifying the contents goes with each retail package. In this condition there is no spilling and daubing, and the crop is marketed and retailed in the same cleanly and neat manner as an invoice of canned fruits.

The subject is one worthy of serious thought and the expenditure of some effort on the part of those interested in the development of a permanent and profitable market for extracted honey.

CYPRIAN BEES.

Several inquiries received recently would indicate that interest in the Cyprians is again being revived. This is probably due to the efforts now being put forth in certain quarters to popularize this justly "despised race," and the interest must of necessity be pretty well confined to those without experience or having read widely upon the subject.

We are aware that the Cyprian is regarded with some favor by as high an authority as Prof. F. Benton; but even he assents to the fact that they use their stings with great energy when thoroughly aroused. It is our experience that they will do so at all times, and that they appear to be thoroughly aroused whether molested or not. The Cyprian will go farther out of its way in search of some poor, inoffensive creature to sting, than any bee we know of.

To those who are fortunately free from Cyprian venom in their apiaries we would say: Have a care how you experiment with a race whose maliciousness and irritability has called down upon it the condemnation of nearly every one with whom it has come in contact.

In this connection we are reminded of an incident recently related by one of the many victims of the Cyprian on the Pacific coast. The young man in question was fortunately possessed of a disposition which, though slightly inclined to humor, bordered on Mosaic meekness. In a letter to the editor of THE AMERICAN BEE-KEEPER he relates the experiences of an afternoon off thus:

"Those who have had Cyps (Cyprian bees) know what they are to sting. For stinging they are all right. I had a number of colonies of these, and one afternoon I thought I would have some sport with them. So I made a shabby old "Paddy" and set him up in the apiary, about twelve feet from one colony that was particularly cross. I gave Mr. Paddy a slouch hat and a white handkerchief for a necktie. I then lit my smoker and puffed a little smoke at the entrance of this hive, just as I do when about to look through a hive, carefully raised the lid and smoked inside, about as usual, then replaced the cover, and betook myself to the weeds, about 40 feet from the apiary. I saw them coming for Paddy and I could not help saying, 'poor Paddy, poor Paddy!' Paddy remained as a target for the Cyps from 10 o'clock a. m. until 3 p. m., and when I took him away he was completely covered with stings and some bees still at work at him though they had lost their stings. The next morning there were two quarts of dead bees in front of this hive alone, to say nothing of the others. This was no surprise, as the stings in Paddy would indicate a greater loss."

In all seriousness we would say that the California Paddy seems to have been let off very light by the Cyprians on this occasion, considering that there were nearly one hundred colonies of them. During our Cyprian experience we would have considered it a very pleasant day when not more than a gallon or so of bees had lost their stings in our clothing and flesh.

Our advice is: Let Cyprians alone.

W. M. Gerrish, East Nottingham, N. H., keeps a complete supply of our goods, and eastern customers will save freight by ordering of him.

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LITERARY NOTES.

The best offer of the year is that made by *Frank Leslie's Popular Monthly*, justly termed "the monarch of the ten-cent magazines." For a limited period this famous and popular magazine, now $1.00 a year, will send free with each yearly subscription, the beautiful "Little Sweethearts" Calendar. This calendar is in six groups of water-color drsigns by Frances Brundage, the famous painter of children, each group in twelve colors, size 10x12¾ inches, on fine Whatman paper, tied at top with a silk ribbon: each sheet contains two months' dates—thus being a complete calendar for 1900. *Frank Leslie's Popular Monthly*, edited by Mrs. Frank Leslie, now publishes the best literature and illustrations that money and energy can obtain, from such authors and artists as Rudyard Kipling, William Dean Howells, A. Conan Doyle, Frank R. Stockton, Mary E. Wilkins, Stephen Crane, Ruth McEnery Stuart, S. R. Crockett, F. Hopkinson Smith, Joel Chandler Harris, Bret Harte, "Josiah Allen's Wife," Henry James, Will Carleton, Edgar Fawcett and Rev. Dr. Henry van Dyke, A. B. Wentzell, H. Chandler Christy, F. Luis Mora, W. Granville Smith, Clifford Carlton, F. W. Read, Ch. Grunwald and others. Prospectus for 1900 and a pretty folder in colors sent free for the asking. Specimen copy for three 2 cent stamps. Frank Leslie Publishing House, 141-143 Fifth Ave., N.Y.

The Self Culture Magazine ($1.00 a year) with The American Bee-keeper, $1.00 a year.

FREE SEED, Second Annual DISTRIBUTION to subscribers to **The Farmers' Realm**, a 16 page illustrated farm and home paper. 25c. pays for paper one year, and ten large packets of vegetable and flower seed free, value 50c. Particulars free. **Farmers' Realm,** Syracuse, N.Y.

Our advertisements this month are worthy of very careful attention.

EDITORIAL NOTES.

When writing to any of our advertisers please do not fail to say that you saw the advertisement in THE AMERICAN BEE-KEEPER. This paper is an American bee-journal, but that is not its name. A number of our correspondents in writing to us refer to THE AMERICAN BEE-KEEPER as the American Bee Journal. There is a publication of that name published in Chicago, and the two should not be confounded.

The series of Florida freezes introduced in 1894 has been continued with remarkable regularity. During the night of February 18, 1900, we again had the temperature slightly below the freezing point for several hours, but the damage to bee-keeping interests as far south as Fort Pierce is hardly perceptible. The winter generally, however, has been quite unfavorable for building up the working force, owing to the heavy rains and high winds which have prevailed during the greater part of the time.

In a letter dated February 14, to THE AMERICAN BEE-KEEPER, Mr. M. H. Mendleson, one of the world's largest bee-keepers, writes from Ventura, Cal., that he fears even a worse season than were 1898 and '99. He truly says "they were bad enough," and adds: "If we get no more rain nine-tenths of the bees will be dead. Many are discouraged and have gone out of the business. I am preparing for another dry year." We will put aside modesty for once to quote Mr. Mendleson a little farther: "THE AMERICAN BEE-KEEPER is neatly printed, and having our leading producers as contributors and its interesting editorials makes it a good journal. It is interesting reading."

SOUTH DAKOTA BEE-KEEPERS.

Yankton, S. D., January 25, 1900, is the birthplace and birthday of The South Dakota State Bee-keepers' Association, a new society of bee-keepers, whose efforts are pledged to promote the interests of apiculture in that state. Mr. Thomas Chantry, the well-known apiarist of Meckling, was unanimously elected president of the organization, and Mr. E. F. Atwater, of Yankton, secretary. THE AMERICAN BEE-KEEPER congratulates the association upon the wisdom of its choice in selecting Mr. Chantry as its first leader; and we trust South Dakota may yet produce honey in proportion to its output of bread-stuffs.

AN UNDERHANDED SCHEME DISCOVERED.

The enemies of the spraying law, which went into effect July 1, 1898, in New York state, have been at their wits' end to have it repealed, and having failed in this at the last session of the legislature, now seek to render it ineffective by the introduction of an amendment which provides that experiment stations and individuals may "experiment." In the event of its passage spraying could be done at any time, under the pretense of an "experiment," and the loss to bee-keepers would be as if no law existed. Every fair-minded and enlightened agriculturist in the state of New York should act at once by writing to his senator and representative, urging its defeat, and thus thwart the deep-laid scheme of misguided persons to not only add to the burdens of New

York bee-keepers at this time, but to remove by poison the medium necessary to the thorough fertilization and consequent development of perfect fruit crops.

It is to be hoped that the measure will be sprayed liberally, while in the bud, with a mixture of just indignation and sound, logical argument directed to the law-makers of the state.

MR. HEISE EXPERIENCES A SERIOUS INTERVAL.

Mr. D. W. Heise, the *Canadian Bee Journal's* jocular correspondent, appears to have been so much excited by our brief comments on his ridiculous statements, in which he said *Apis dorsata* "cannot be domesticated," etc., etc., that. in his efforts to say something really sarcastic of THE AMERICAN BEE-KEEPER in quick response, he unwittingly defeats his own position and lines up with the true advocates of the giant East Indian bee. Hear him:

> "Is it absolutely necessary for an individual to make a personal investigation pertaining to any matter or thing before he dare have faith in it? Men of practical experience have made extensive experiments. and that at the expenditure of considerable money for the purpose of domesticating *Apis dorsata*, and have failed. Must the testimony of these men be treated as rot? That is all I know about it: but you, Mr. B. K., don't appear to know even that much; where have have you been all summer with your winter clothes on?"

We believe no man living has made more thorough investigations and conducted more expensive experiments in this work than Prof. Frank Benton, of the United States department of agriculture, who says:

> "Colonies placed in frame hives and permitted to fly freely did not desert these habitations, and far from being ferocious, these colonies were easily handled by proper precautions without even the use of smoke. It was also proved by the quantity of honey and wax present that they are good gatherers. The execution at that time of plans to bring these bees to the United States was prevented only by severe illness contracted in India."

We always hold the most profound respect for the honest opinion of any man, whether it is or is not in accord with our own, and we are glad that Mr. Heise, with us, will no longer treat the experiences of such an able entomologist as Professor Benton, "*as rot.*" When a man, under date of December, 1899, gives public utterance to such positive assertions—especially one who, in all probability, never saw a living specimen of *Apis dorsata*—and attempts to hold up to ridicule the sincere discussion of so important a subject by a gentleman of Dr. Mason's years and acknowledged ability, he should not be so greatly surprised to find that his derisive assumptions are sometimes received for exactly what they are worth.

Memories of Dwight L. Moody.

It was the wish of the late Mr. Moody that his biography should be written by his son.

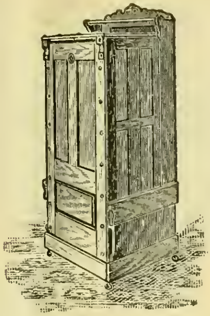
Mr. W. R. Moody, who has in his possession all of his father's papers and is preparing a very complete life of the great preacher, has consented to write especially for *The Saturday Evening Post* a series of anecdotal papers on his father's life and work, profusely illustrated with hitherto unpublished photographs.

The first of these papers. entitled "Moody as a Boy and Business Man," will appear in the April 7 number of *The Saturday Evening Post.*

In making honey taffy so as not to burn it, cook it very slowly. Don't put it on too hot a place on the stove. Constantly stir until it boils. Even on a very slow fire there is danger of burning if the latter precaution is not observed.

Looks like a WARDROBE, doesn't it?

It's intended to look that way; that's why it's cased in handsome polished quartered oak.



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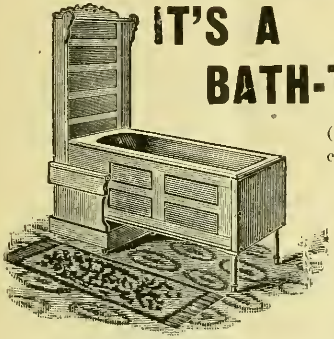

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The tub is pivoted about two-thirds of the way down, and so perfectly balanced that any one can easily let it down, or raise it back to close it. At the top of the front of the closed tub you will notice two little ornamental carvings or embossments, tipped with fancy brass; they are the ends of the legs. When you let down the tub, they slide out into position to support it and lock themselves automatically.

Bee-keepers mostly live in country houses,

where there is no city water supply, and this tub is intended for the family which must be independent of the plumber. There is a convenient device for emptying the tub, either into pails or through a waste-pipe.

We have only a few of these tubs left; we warrant them to be made in the most perfect and substantial manner possible; an ornament (when closed) to the most elegantly furnished room; and, as we wish to clear them out to make room for a different line of articles, we offer them at the extremely low price of **$18.00** each, which is below what they could now be built for.

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Honey and Beeswax Market Report.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

CHICAGO, March 8.—There is a small trade in choice to fancy white comb honey at 15c.; but aside from this there is little doing in any other grade, with an uncertain range of prices, for those who have it want to sell and buyers can get reductions from prices asked. Off grades of white 10 @ 13c.; ambers 8 @ 10c.; dark, 7 @ 9c; white extracted weak at 8c.; ambers 7 @ 7½c.; dark 6½ @ 7c.

Beeswax steady at 28c. R. A. BURNETT & CO.

BOSTON, March 20.—Market shows signs of lower prices, and stock not large. Fancy white, 17@18c.; No. 1, 15 @ 16c.; amber 10 @ 12c.; buckwheat almost unsalable. Extracted, best white California, 8½c. BLAKE, SCOTT & LEE.

KANSAS CITY, March 18.—We quote fancy white comb, 15c.; No. 1, 14c.; No. 1 Amber, 13½c.; No. 2 Amber, 13c. Extracted, white, 8c.; amber 7c.; dark, 6c. Beeswax 22 @ 25c.

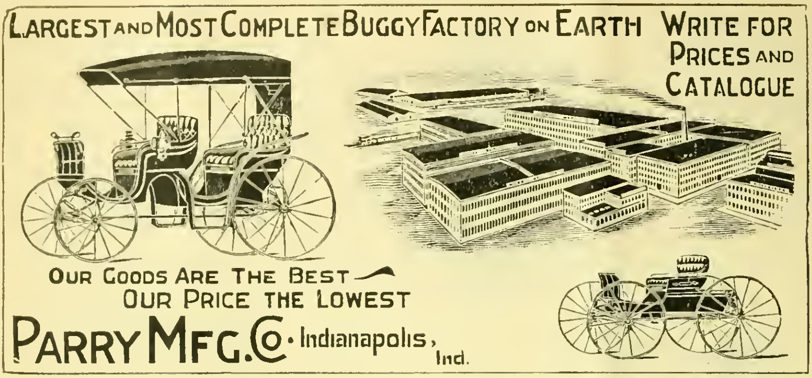
Comb—supply light; demand good. Extracted—light; demand fair. C. C. CLEMENS & CO.

BUFFALO, Mar. 15.—Market very low in all grades of honey; probably no more to be had; if so, fancy white will be firm at 15 @ 16c. Other grades 14c. downward; poorest 8 @ 9c. Fancy pure beeswax keeps at 28 @ 30c. BATTERSON & CO.

NEW YORK, Mar. 16.—For the past month our market has been quite slow in both comb and extracted honey; demand for comb honey, all grades, is fair, though stocks are low. Fancy white, 15c., No. 1 white, 13 @ 14c.; fancy amber, 11 @ 12c.; buckwheat, 9 @ 11c., according to quality, etc.

Market well stocked with extracted; prices firm. Beeswax sells well at from 26 @ 28c.

HILDRETH & SEGELKEN.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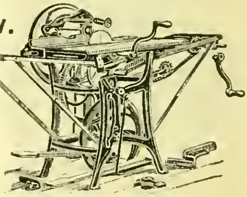
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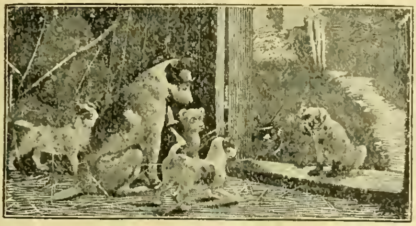

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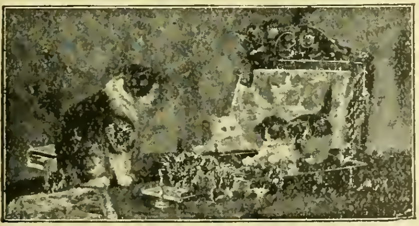

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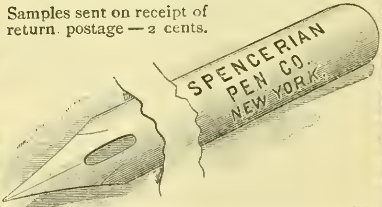
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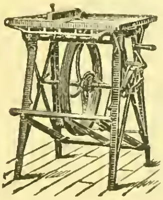

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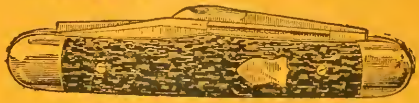

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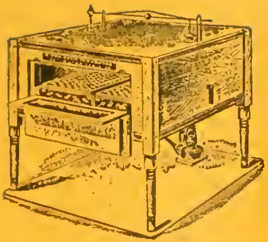

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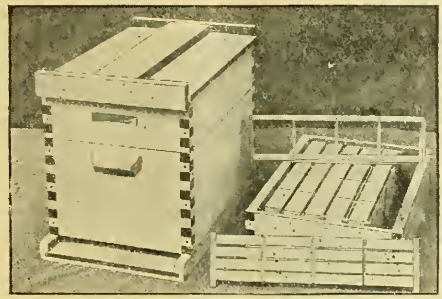

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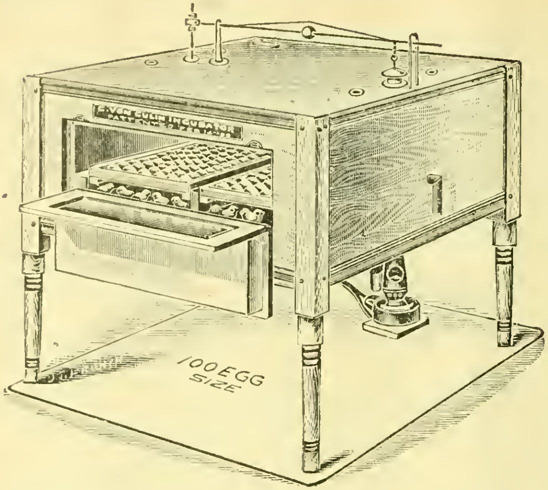
INCUBATORS



It gives very good satisfaction, as it hatches every fertile egg. MRS. J. A. KLINE.
Oakhall Sta., Center Co., Pa., Apr. 13, 1900.

Mr. Conrad got 225 chickens from the first hatch; he is perfectly satisfied with the incubator. R. S. PUTNAM.
New Iberia, La., Apr. 11, 1900.

have been on the market now for several years, but a great many people who raise poultry or would like to be in the poultry business, hesitate to invest in an incubator on account of the many conflicting reports concerning them. One person will recommend a certain machine while another will condemn it. Often it is not the fault of the machine, but failure comes through inattention or ignorance on the part of the person running it. Of course there are a great many incubators that are next to useless, and most of them are a long way from perfection. WE BELEIVE that our

New C. Von Culin Incubator

is the most perfect machine possible to manufacture. It embraces all the most valuable ideas of the most experienced poultrymen and is scientifically and substantially constructed. Our machine is not an experiment; it has been thoroughly tested for more than two years with the most satisfactory success. Ours is a hot air machine, the only successful method of heating. They are furnished complete, with egg tester, thermometer etc., all ready to begin work.

We will send Illustrated Catalogue on application.

We also make

BROODERS, ALL SIZES.

[Continued on next page.]

INCUBATORS

Owing to the lateness in the season and the fact that we have quite a stock on hand, we are now offering a special discount, making the prices less than wholesale. Write for them.

We guarantee our goods to be satisfactory; if not no pay is required.

Read a few of the

TESTIMONIALS.

You will find money order for incubator which I had on trial. I am perfectly satisfied with same. WM. C. ROBINSON.
So. Glens Falls, N.Y., April 3, 1900.

I have as good chicks as were ever taken out of an incubator, and I am well satisfied with the results. I never saw one that worked more perfectly and kept up heat better in cold and changeable weather than your machine does. It does everything you claim it will do. THEODORE GROSSMAN,
Muncie, Ind., April 2, 1900.

I am satisfied you have the best on the market. The chicks I took out of last hatch * * * were the best chicks I ever have seen and now they are four weeks old. I have not had a sick one in the lot. The chicken men who have been here—and lots come—say they never saw better chicks. * * * It surprises them to see how little oil I have to burn to get out a hatch. The ——— will use five times the oil. JOHN A. GOODWIN.
Akron, Ohio, April 2, 1900.

Have tried your new 250 egg incubator again and am not sorry, for I only had sixteen eggs left in the trays that did not hatch. CHAS. A. PERKINS.
Wethersfield, Conn., March 12, 1900.

Will say that the New C. Von Culin requires less attention than any incubator I ever saw and burns less oil. A. C. WHITTIER.
Monmouth, Maine, March 27, 1900.

I expect to send for two or three brooders next week * * * The best hatch I have heard of in this section was made in a New C. Von Culin, 200 egg size; the next best 89 out of 260 eggs in S———; the P———, two hatches, no chicks; the A———, 800 eggs, 200 chicks; the R———, 200 eggs, 50 chicks; E———, 200 eggs, 54; next, 25 chicks. D. H. HIGGINSON.
Watkins, N.Y., April 5, 1900.

Our machine hatched and we are well pleased with it. M. G. LINCOLN.
East Norton, Mass., April 9, 1900.

Have two New C. Von Culin incubators in operation; both prove satisfactory and have hatched splendidly. JOHN C. SPRINGER.
South Swansea, Mass., April 11, 1900.

I have one of your incubators * * it is a good one. I am but too pleased to recommend them. F. A. GRAVES.
Hecla Works, N.Y., Feb. 21, 1900.

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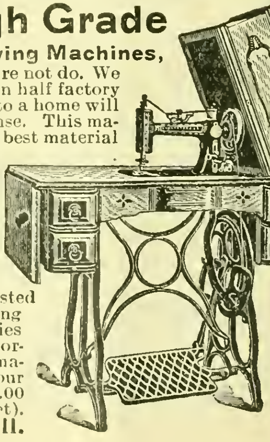

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X MAY, 1900 No. 5

ANNUAL ADDRESS.

Delivered by President W. F. Marks, before the N. Y. S. A. B. K. S., at Geneva, N.Y., Jan. 10, 1900.

FELLOW members of the New York State Asso'n of Bee-keepers' Societies:–I will ask your forbearance for a few minutes while I bring to your notice the result of our labors, as an organization, since our last meeting, and briefly call your attention to other matters requiring your future attention. In the first place, the aid promised you last year by the director of Farmers' Institutes towards inaugurating a series of bee-keepers' institutes, has been faithfully carried out by the director, Mr. F. E. Dawley; it is for you to say whether these institutes have been interesting and instructive, and if it is your desire to have them continued in the future.

At your last meeting you demanded the enactment by the legislature of a new foul brood law, similar to the Wisconsin law. Such a law was passed as most of you know, and is chapter 223, Laws of 1899. Two bee-inspectors have been appointed under the law: Messrs. N. D. West and Mortimer Stevens. New questions in relation to the diseased brood have, however, arisen that should receive your thoughtful consideration; as well as the thoughtful consideration of all bee-keepers. According to reliable reports a bee-malady of some kind is epidemic in Schoharie County and vicinity. I have no doubt myself but that our Commissioner of Agriculture, through his agents, will take energetic measures to suppress the malady when they become satisfied what it is, and how to handle it; at the same time you should consider the matter; it is a matter that will require tact and discretion, and whatever else you may do, perhaps it would also be advisable to name a standing committee on contagious diseases among bees, whose duty it shall be to investigate and study this question, with power to act, or to report at any special or annual meeting, as occasion may demand. It is important that this Association keeps informed in all such matters, in order that it may act intelligently and for the best when circumstances require it. Again, I say, give this matter due consideration.

As most of you know, an attempt was made at the last session of the legislature to repeal our spraying law, Chapter 325, Laws of 1898; which fact stands us in hand to be on the alert. I understand petitions were circulated by the opposition and forwarded to the legislature from certain localities in Niagara County, asking for such repeal. If the occasion should arise again it may be necessary for you to circulate counter petitions. I trust you will, one and all, hold yourselves in readiness for any work that is liable to be forced upon us in order to retain this law. I believe there is an old saying that "anything worth having is worth fighting for." We have an excellent spraying law; if necessary, let us fight for it. We are backed by the best and largest fruit growers in the state; you must not expect your allies to do all the fighting for you. Let us take our pet, the bee, as a model. In the words of the poet:

The bee's a warrior bold, and never saw
Foe, who could make her from the field withdraw;
In single combat, or in army fight,
No bee has ever shown the feather white—
Ready, aye ready, any time to rally,
And at a moment's notice forth to sally.

The bee's a model citizen—ease, food,
Life, all is yielded to the public good;
No individual interests weigh a grain
Where there are public interests to maintain.

Again, I repeat, let us imitate the bee.

I would respectfully call your attention to section 2 of the proposed new constitution of the National Bee-keepers' Association, which reads as follows: "Whenever a local bee-keepers' association shall decide to unite with this Association as a body, it will be received upon payment by the local secretary of fifty cents per member per annum; provided that the local association membership dues are at least one dollar." This is a step in the right direction, and if adopted should not only encourage the organization of local societies, as it would admit members of such societies to membership in the National Association at one-half the regular price, but would, I believe, lead to a better and more practical national organization. Keep your eye on the new National Association and prepare to take advantage of this provision of the constitution.

There is another subject to which I will briefly call your attention; it is an important one. I refer to the disposal of the products of our apiaries and farms. No farmer or bee-keeper under our obsolete method of trade is receiving full value for their products. Just let us stop and think, for a minute. What other class of products is there, the bulk of which must pass through the hands of commission men before reaching the consumer? Where are there any successful manufacturers who are disposing of their goods through the commission house? Our products, through the prevailing method of sale, is at the mercy of the most unscrupulous commission man. It is the commission man who sells the lowest who does the business, and who establishes the price of our products. The honest commission man; the one who would get full value, is not in it. He, too, is at the mercy of the most unscrupulous member of the craft; and we are no better than their slaves. I want you to understand me, and I will repeat; it is the commission man who sells the lowest who establishes the price. Right here I imagine that someone will bring forward that old gag, "the dealer, if he buys for cash, must buy cheap." Does not the argument, when analyzed, sustain my position? Of course he must; because he must compete with that unscrupulous commission man; a man who is loaded up with produce that did not cost him one cent; not even the freight. Stop selling through the commission man and then see what the dealers who will buy for cash will pay. If they cannot get our goods on commission they must pay cash. Having money invested in it, then and not till then, will they try and sustain prices. Last fall a friend, a person who buys thousands of dollars' worth of goods through commission houses every year, told me—and he had just returned from New York City—that he was offered fine choice apples by the commission houses at $1.00 per bbl.; and that very day cold storage dealers were paying $2.25 cash per bbl., and taking all they could get at our station, to my certain knowledge. Someone will say, did they not have to compete with the commission houses? Of course they would if they sold at that time; and it is plainly to be seen that they could not have paid very much. But they hold their apples until the commission houses can get no more, then they enter the market. Had the commission houses been unable to get apples on commission at any time, would they have been selling at $1.00? It seems plain enough; and yet the same holds true in every other product. I have asked many city dealers of whom they purchased their farm produce, and they invariably said, through commission houses, and gave for their reason that they could in that way buy cheaper than of the farmer; and I remember one instance in particular, where the dealer with a knowing wink and laughing, said, he would rather let the commission men settle with the farmer, and then his conscience would be clear. I have seen it stated, and I believe with good reason, that the securing of a crop was only one-half the labor or cost. This is true in all industries. I have many times wondered why the time at our farmers' institutes was not divided equally between How to produce and How to sell. I tell you, gentlemen, we must adopt different methods of disposing of our products. It will take years to bring this about, and the agitation of the question cannot begin too soon. But there is one thing can and should be done, at once. Commission houses, handling as they do, millions of dollars of other people's money, should be put under state and national supervision, the same as banking; why not?

Do not forget to save your fancy honey for the Pan-American exposition in 1901, it is important that this state make a creditable exhibit.

In conclusion let me again urge each of you to lose no opportunity to strengthen your own and to encourage the organization of other bee-keepers' societies, until we have one such society in nearly every county in the state. Take interest and pride in your pursuit, and let us make the New York State Association of Bee-keepers' Societies a model organization in every respect. I thank you for your attention.

QUEEN REARING.

An Expert Minutely Details His Methods of Conditioning Colonies for the Work —Other Valuable Suggestions.

BY W. H. PRIDGEN.

IN THEIR wild or primitive state, as well as when kept as our forefathers did, nature aids bees in propagating and perpetuating themselves by the law of "the survival of the fittest" to a great extent. Not only by causing the inferior to succumb in times of scarcity and the vigorous to predominate, until there is but little difference in size, color, disposition, hardiness or business qualities among those in the same territory; but it is seldom that a queen is reared by such except under the most favorable conditions. Like everything else, they make mistakes in swarming too much and too late at times and have to succumb because the anticipated flow is not realized, and even an unfortunate position of the cluster during a prolonged cold spell may turn the scales against an otherwise fortunate colony by causing a loss of a large per cent. of its force; but usually the difference can be accounted for by other conditions rather than varying qualities of the queens or bees themselves.

Left to themselves to survive if they can, they become in time adapted to their environments, and give the best results where the management is on the let alone plan. Unless one studies the traits of the different races and manipulates them accordingly, the purchase of queens is a waste of time and money, and there is no better plan for such than to assist nature in supplying the very best queens from the colonies that have from actual service proven themselves to be the best adapted to their seasons, times of harvest and mode of management, "regardless of race, color or previous condition of servitude."

One who has studied the characteristics of the different races can judge somewhat of another's management by the race he prefers, or that gives the best results. Where they are manipulated a great deal, those easiest to handle are preferred and by a wise management may give the largest yields; for this reason some favor one and some another. Let each one experiment until he is fully persuaded which is best for him, and then use the natural opportunities offered in assisting in "the survival of the fittest," and thus offset the bad effect of preserving inferior colonies that would naturally succumb. For, when modern management is brought to bear, and different means are resorted to to preserve all colonies, the natural conditions are knocked out of joint, and the way opened for deterioration or improvement.

By a judicious selection results can be attained in a short time, that nature alone might be years and years in accomplishing; but even then they are too slow for one to go crazy over.

In the hands of experts the swarming impulse may have been abated to some extent, which is yet to be proven. Usually the failure to swarm can be attributed to other causes than the mode of raising queens. Unless this part of the work be properly done it may check swarming by failure to furnish queens or bees equal to the task. For several seasons there have been but few swarms in our apiary, being to some extent ushered from winter right into summer weather, which so forced vegetation in advance of the bees that but few colonies were sufficiently populous to swarm before or at the beginning of the first flows, which were so heavy and sudden as to check swarming where preparations were not already in progress.

With the return of favorable conditions for early breeding, followed by light and steady prolonged flows, the return of the old-time swarming impulse is anticipated; and not an opportunity will be wasted in taking advantage of the circumstances to assist nature in doing better than she would unaided.

Thwarting nature by weeding out the objectionable, to save cells from any that may chance to swarm, is not advisable; although any sealed or nearly ready to seal, cells may be reasonably satisfactory, unless there has been a perceptible degeneration.

As has been stated in previous articles it is hard to select a good queen in a single season, and a number that come up to our ideal standard in all appearances, should be worked at least one season for honey only, and then select from these to breed from.

The professionals may bring about, to some extent, favorable conditions for breeding fair queens when they do not exist naturally, or take advantage of them when they do exist, and secure finer queens than many reared naturally; but by exercising the same care and with the same amount of labor the naturally reared ones are hard to beat:

and those who want a few of the best cannot do better than take advantage of, or bring about swarming to secure them, and especially the inexperienced in queen rearing. As soon as the colony from which cells are desired is sufficiently populous to protect it, give combs of sealed brood until the brood chamber is crowded with brood and bees, and feed a little each day if no honey is coming in. When this point is reached fill a hive body with full combs of brood from different colonies that can spare them, and place the body thus prepared over any strong colony, with a queen excluder between, for eight or ten days; then, just at night, lift it off and place it on a bottom board and put on a cover until next morning, at which time put it on the breeders' hive without an excluder between, and during the day examine the combs thus given, and remove every queen cell, if there be any present. Now feed liberally so as to have this set of combs filled as the bees hatch out, and in ten more days shake the bees from them and place them (the combs) over some other colony, to be used in forming nuclei later on. Now drop back to feeding a pint a day, and evidences of preparations for swarming will be present very quickly, or else there will be quite stubborn cases on hand. As it is less trouble to hive a swarm back than to be continually examining the combs for the first sealed cells to remove the queen, besides the good effect to follow the hiving of the swarm back, I would in this case clip the queen's wing and allow the swarm to return, except just enough of the bees to form a nucleus, to which I would give the mother queen.

Again fill a body with full combs of sealed brood from other colonies, with adhering bees as well, provided no queen is given, and place it over the swarm; continue the feeding provided no flow is on, until the swarm again issues with a virgin queen, or queens, as the case may be, and, without taking time to hive the swarm, as soon as it starts out be prepared with cages made from wire cloth rolled up, or some kind of a nursery to care for the young queens that will be popping out of the cells, and open the hive instantly and save them. The point of each cell should be stuck in a cage as fast as they are cut from the combs and every liberated queen caged. As soon as this is done close the hive, and again return the swarm, first putting on an entrance guard so as to be able to cage the queen or queens that may be with the swarm. When this is done commence forming nuclei of these bees and combs, giving combs according to the number of queens and cells. The bees having just swarmed will remain where they are put better than they will under any other conditions, and especially those to which queens are given instead of cells.

If one has never had such an experience the excitement it causes is worth the trouble, besides securing queens second to none on earth, so far as development is concerned; and I know of no better way to get increase from select stock.

At first thought, this may seem to take too many combs of brood for the increase, but it should be remembered that it takes bees to form nuclei, and in this case each division is quite a respectable little swarm of itself, although there are ten or fifteen of them.

As soon as everything has settled down, the first set of combs that were filled with syrup or honey on our swarming colony, can have the bees shaken and brushed from them and be given to the nuclei that got the least honey in making the divisions; and enough more combs should be added from some source to make all comfortable, and we will soon see a number of colonies building up nicely, with queens that may cause swarming the next season, if the hives are too small to hold their bees, which will seldom be lacking in vigor.

When left to nature, the cells from

which the surviving queens emerge, are usually sealed before the swarm issues, and of course the others are very liable to be, and no doubt often are, neglected, which may account in a measure for inferior queens from natural cells when man takes a part and saves all; but if the swarms be hived back and the old queens removed there will be less difference in them than is usually the case when artificial means are resorted to. If cells are present in a crowded hive that has the swarming fever, the weather has to be unfavorable indeed to prevent the issue of a swarm, and one can usually rest easy without taking the risk of exposing or handling such cells; but under certain conditions I should listen in from six to eight days for the piping of the queens, and make the division as soon as it is heard. The condition of the weather, just before a prime swarm issues, should be taken in consideration in figuring on the time to expect the second. It is occasionally the case that cells are ripe before the prime swarm leaves the hive, and especially if the weather has been unfavorable for some days, and the swarm issues the first day that is suitable. Before considering the above impracticable, it should be noticed that the "fussy" part is in bringing about the desire to swarm, which is not so much more trouble than bringing about the conditions to rear queens artificially, where the object is for quality and not to save labor; and it is not necessary to do much of this if the swarming occurs naturally in time. In this case simply hive the bees back without the queen and save the young queens and cells when it issues the second time, as heretofore described.

Those who do not care to wait for swarming, or bother with it, and are not accustomed to rearing queens by any of the plans followed by professionals, can secure very good ones, and have the bees ready to accept the queens and form nuclei by filling a body over a strong colony with combs of brood with an excluder between, and ten days later remove the part containing the queen and unsealed brood; cut out all cells in the part left on the old stand (the body of combs placed over the excluder). Do this in the morning, and in the evening give a comb from the breeders' hive (given to it four or five days before) with the bottom of the comb cut away to the just hatched larvæ. More cells will be started by having the bees without a queen or unsealed brood for several hours. As soon as most of the cells are sealed get combs of brood and adhering bees, being sure no queen is given, and place them under the cell builders, by raising them up until a comb of brood is given for each cell. Feed liberally from the time the comb of larvæ is given until the nuclei are formed, so as to avoid the necessity of having to feed the nuclei, besides improving the quality of the queens by so doing the first five days. The tenth day the cells should be cut out and placed in some kind of a nursery or West cages, and as soon as they begin to hatch, form nuclei of the colony by giving a comb of honey and one of brood, and give each a queen. If there should not be a comb of honey for each nucleus draw on other colonies, and place them in the parent hive as they are used out. In a day or two all the cells will have hatched, and the colony used up in forming nuclei and the queen that occupied the stand can be placed back to catch the returning bees and again assume an air of business.

The bees in the portion of the hive that is moved off the stand when the queenless part is prepared for cell-building, sulk for a day or two and then join the cell-builders just when their assistance is most needed to give the best results.

If one should prefer transferring larvæ to cell cups the bees may need to be queenless longer than if the comb of larvæ be given. When they show restlessness by crawling excitedly about the entrance, flying off a foot or two and returning, they are usually ready to accept cells. This condition can be hastened by shaking them from the combs either in front of or right into the hive.

Creek, N. C., March 26, 1900.

Bees Repel Tax Collectors.

Selah Merrill, the American Consul at Jerusalem, in his report, published by the Bureau of Foreign Commerce of the Department of State, speaks interestingly on the subject of "Bee Raising in Palestine." He says that the credit for the development of the industry by the introduction of improved modern appliances is due to a family named Baldensperger, which went from Switzerland to Palestine, in 1849, settling at Artas, a village about seven miles from Jerusalem.

Until 1883, however, very little was accomplished. In that year the Baldenspergers adopted the plan of transporting their bees from one locality to another, for the purpose of securing the best results from the varieties of orange and lemon blossoms. They had succeeded in establishing the industry on a paying basis, when the attention of the government was drawn to their work, and a tax was placed on each hive, which, by an ingenious construction of the tax collector, was made to make a separate hive out of each opening. In this way 150 hives in the apiary of the Baldenspergers became 2,000, subject to taxation. In 1889 the Government secured a judgment against the Baldenspergers, and their apiaries were advertised for sale; but when sold for something like $1.50 a hive, the government was unable to deliver the goods, because whenever they attempted to touch the hives, the bees swarmed out and threatened the intruders. A compromise was effected, the Baldenspergers paying one-half of the claim against them.

It seems from the Consul's report that the difficulties of successful bee raising are, however, numerous, owing to the ravages of rats, lizards, moths, hornets and men. The last named are the most to be feared. The sheiks demand a percentage of the honey, and if it is not paid they destroy the hives and the bees. Something like ten per cent. of the crop is demanded as a tithe. These things, added to the taxation, make the success of the industry doubtful, and, at least, requiring patience, tact and perseverence.—*Washington Post.*

Told by a Newspaper.

A Bee Story.—Up in Lake County Billy Reed had several hives of bees. The other day a big swarm came from the hives of his neighbor, J. S. Dewey, and attacked his bees. There was a furious fight. Mr. Reed heard a great buzzing, and saw the unusual commotion around his hives and went to see what was the matter; but he soon wished he hadn't and was quite willing to watch the conflict from a distance. When it was all over, he gathered up dead bees by the hatful. He had managed to close the hives, but as many of the attacking bees had already got inside, the fight had gone on there just the same. Apparently, the bees had tried to make the conflict one of extermination on one side or the other; but the attacking bees met with such furious resistance that such of them as were left finally flew away, carrying with them all of Reed's honey they could pack. Nearly all of Reed's bees were killed and a great deal of honey was taken.—*San Francisco Examiner.*

* * *

One of the greatest secrets of successful honey production is that of having a great force of field workers during the honey harvest.—*Review.*

The Boy in the Apiary.

Beginners in bee-keeping appear to find greater pleasure in a search for the queen than in any other practice in the apiary. When a boy gets his first hive of bees and has mustered sufficient confidence and courage to open a hive and "find a queen," without assistance, he is very much inclined to regard himself as well advanced in the modern art of apiculture. If he chances to see the veteran manipulating a hive, "he's looking for the queen," comes the soul-absorbing thought immediately, and he begins to scan the combs for this central object of his childish interest. If he gets his eyes upon her he will not fail to promptly acquaint all present with the fact, if not by some quick movement resulting in several stings and a good lesson for himself by a very emphatic "Oh, here she is; ain't she a big fellow!"

"HERE SHE IS!"

Were it not for the fact that a few years hence all the responsibilities of the bee-keeping industry will rest upon these young queen-hunters, we should not hesitate to classify them under the head of "Nuisances in the Apiary;" but we are, by reason of that fact, bound to not only endure the nuisance (?) but to encourage the interest, that they may grow up familiar with general matters relating to the cultivation of bees. Give the boy a colony of bees, and stimulate his interest in their care by allowing him the profits of his stock.

* * *

WIRE-SCREEN SEPARATORS, ETC.

Some Seasonable Suggestions in Regard to a New Disease—Milk Feeding.

BY F. GREINER.

THERE are but few comb-honey producers at the present day who do not use separators in their supers. A strictly fancy article cannot be produced on a large scale without them; the bee-keepers of America decided that point many years ago. It was also settled beyond a doubt (?) that the loss of honey occurring from dividing supers into so many small chambers, was insignificant; in fact, I have sometimes thought that there was an actual gain in "finished honey." In an open super *more* combs would often be started than in one with separators, but none would be finished, while in the latter sometimes all that were started were finished. The use of queen-excluding metal was not as universal as now, and when a queen took a notion to enter an open super, the whole of it was sometimes filled with brood. In supers with separators seldom more than two or three sections are spoiled with brood.

But then, I did not set out to enumerate the advantages of the separator super over the open one but to speak of the separator itself.

Competition has brought about such a state of affairs that our comb-honey must now be strictly fancy as to finish; and it is thought that the freer the communication, other things being equal, the better the finish of the product—the better the sections will be filled out. This seems to be the experience of many of our best honey producers. The *fence* Separator and the *perforated* separator are thought to accomplish the object most perfectly, and have already been adopted by many within the last two years.

If our theory is right; if it is true that the better the honey the freer the communication, the less obstructive the separator; then it would seem that a wire-screen separator, allowing the bees to pass through it, would accomplish the object in a still higher degree. I have been afraid to use wire-screen for separators; but it seems from the testimony I have that it answers very nicely and gives perfectly smooth comb-surface. Mr. N. N. Betsinger, of Marcellus Falls, N. Y., exhibited a super with wire-screen separators (four meshes per inch) in Geneva, last winter; a super he has used successfully for a number of years. The separators were so arranged as to leave bee-space between the edges of the sections and the separators; a feature that is not found in the regular fence or cleated separator-super. If the Betsinger separator ever needs cleaning—a thing it seldom does—it may be cleaned easily with concentrated lye, as it hangs loosely between the section holders like a frame in a rabbet. The cost probably is greater than that of any other separator, but they will outlast the wood.

To the Bee-keepers of New York State:

The new New York bee-disease is, as we had reason to suspect, *not* a *new* disease. It is stated that it spread from nuclei that had been imported from the South, and so, of course, the disease must be there; and it would be well to investigate the matter for the sake of the general good. But no matter as to this! We in New York have reason to be on our guard. Although the disease is not foul-brood, from what Inspectors West and Stephens and Prof. Benton say, it is just as destructive and even harder to combat. Inspector West says it seems to fall from the heavens, sometimes, like rain. In the infested districts over one-half of the bees have already been wiped out of existence.

It behooves us, then, to be very, very careful. I would suggest not to purchase bees from anywhere unless they were carefully examined at both ends of the route; also not to buy doubtful honey for feeding. Should we discover the disease in our yards, or in those of our neighbors, inform and instruct them, and notify the inspectors, etc. We must use the utmost care in manipulating bees; under no consideration should we exchange combs or leave honey exposed.

I wish to remind the reader of what I have said once before in some bee journal about milk feeding. *Imprudent feeding has a tendency to start foul-brood.* Spring, of course, is the time to feed milk to bees, if it is fed at all. Dr. Dzierzon has practiced it for years and reported last year again very good results. He fed in the open air, toward night, every day. Milk is a powerful stimulant and will start brood-rearing at a wonderful pace. I have had several inquiries again, of late, in regard to the matter. There is nothing difficult about it. The fresh milk is simply brought to the boiling point and sweetened with sugar (not honey). At first it must be made quite sweet, until the bees have learned to take it, then the amount of sugar may be reduced. Dr. Dzierzon feeds towards night, in the open air; this makes less work than when feeding each colony separately. I have never practiced this wholesale feeding, but have fed a few colonies separately in little entrance feeders. Bees can be raised cheaply thus; but the apiarist ought to use good judgment not to overfeed.

Gravenhorst, of Germany, wrote me several years ago that the trouble begins when colonies store the sweetened milk in the combs for future use; for it will soon sour and decompose. In a late article Dr. Dzierzon says that it is not strictly necessary to use the milk absolutely fresh: it may be left standing a short time—eight to twelve hours—and have the cream removed.

Naples, N.Y., March 21, 1900.

❧

ARE "SNOW-WHITE" SECTIONS DESIRABLE?

R. C. Aikin, in the *Progressive Bee-keeper*, concludes an explanation of his reasons for preferring the T super to others, as follows:

> I consider the complete protection of the outside of the section to keep off propolis, such as will be placed upon the face of the wood to stain it, as one of the very foolish, expensive things that bee-keepers are asked to do. I consider this one of the very class of things Doolittle has been kicking against right along, and why he should advocate this very white section "fad," I do not understand.
>
> I use the T super because of its very simplicity, and because I have never yet found a pattern-slat or section wide frame of four sections in length but that it would sag or allow in some way of the chinking in around the edges of as much or more propolis than in the use of the T.

In responding to the above Mr. Doolittle, in his own good-natured, inimitable way, indulges moderately in sarcasm, by quoting "a writer" in the *Progressive Bee-keeper* and "showing up" the fallacy of said writer's doctrine. Here are Mr. Doolittle's comments:

TWO TO THREE CENTS PER POUND MORE FOR CLEAN SECTIONS.

That is what a writer said in THE AMERICAN BEE-KEEPER during 1899, and he believed that the sections should be "snow white," and so protected that no propolis could come in contact with the "face" of the wood, or else the face sides of the wood should all be run over a sandpaper machine, where propolis was allowed to come in contact with the wood, as in the T supers; and yet, here we find Aikin going right square against a saving of from two to three cents a pound more for honey simply because he has become accustomed to the T super. Well, all I have to say regarding the matter of surplus arrangements is this: I have faithfully tried nearly every kind that has been put before the public, and all of them, except properly made wide frames are piled up in the "exhibition" heap, as none of them had any advantage, all things considered, over the wide frames, while many had positive disadvantages; and this I would say, no matter whether a few sections are put on at a time, or whether enough for the whole season go on at once. Properly made wide frames holding either two, three, four

W. F. MARKS.

See pp. 81-82.

or eight sections, will not sag so as to allow of propolis being "squirted" around the sections. I know very many of them do, but that is because they are not made so the four sections just fit the frame, and they are not properly keyed up, also. But Bro. A. is very much mistaken in thinking that it is Doolittle who is advocating any such thing; neither do I believe that consumers will pay any more for the same quality of honey stored in very white sections than they will for the same quality of honey stored in "seconds," as they are called, the writer in The American Bee-keeper to the contrary notwithstanding. If I did I should not be using "seconds" for sections all these years, as I have been. What I believe is, that after the sections are filled with a nice white comb of honey, the sections are rarely looked at, either by the producer or the consumer; but it is the beautiful comb honey that is looked at ever afterward, and it is for this reason that Doolittle has been advocating taking off the honey while the combs are snow white, all these years, rather than "white sections," as Bro. A. imputes to me. I don't guess at the matter; I know that snow white combs will sell both in the New York and Boston markets at from two to three cents a pound above those left on the hives until they are colored, each having the same quality of honey, and an experience as to the selling price of the two, during the past fifteen years, is the reason of that "know."

THE APRIL BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

Allow me, in behalf of the readers of The American Bee-keeper, to thank "Swarthmore" for the further light he throws on his plan of working his bees for non-swarming. Sorry he could not heed the request, that he write over his own name rather than a *nom de plume*. But his articles are very readable, in any event.

REMOVING THE OLD QUEEN.

"Swarthmore" tells us that the reason he removes the old queen, after she has been confined behind the queen excluder for eight or ten days, is because "should she be allowed to run at large again on the combs of that hive the bees would soon prepare to swarm: when, if a young queen or a cell is introduced instead there will be little danger of a swarm from that colony at all that year." The giving of a young queen to any colony, if done in the right time, so as not to interfere with the honey crop through the cutting off of the egg supply, just when those eggs are to give bees which will come on the stage of action right in the harvest, is something that brings activity to any colony, when this young queen begins to lay, as is given, hence is a good thing; but, as far as my observation goes—and my experiments have been conducted for more than twenty years along this line—such young queen produces no more activity in a colony than does the allowing of their own queen to run at large, after she has been caged the same length of time that may elapse before the young queen commences to lay. And my experiments also convince me that swarming does not hinge on the age of the queen, but rather on the break that is made in the normal condition of the colony, through a certain period occurring, during which no eggs are laid, when the queen is confined from the combs; then following a period when there are no larvæ to feed, and later on, when there are no young bees emerging from the cells. This break, through the confining of the queen, throws the colony out of its normal condition along the line of eggs, larvæ and emerging bees, and from this comes no swarm; if this break is made about ten to fifteen days before the main honey harvest begins. By doing this work early in May, or from six weeks to two months before the harvest, bees in this locality will swarm just as much with a young queen as with any other, and with any fairly prolific queen, under these conditions, colonies are sure to swarm, if the season is favorable. But by making the break at the right time, and allowing it to cover a period of from ten to twenty days, all disposition to swarm is overcome, no matter how old or how young the queen they have may be, after the break has occurred. By giving a virgin queen or a queen-cell, the break is made longer, hence, makes their not swarming more sure than it would be with the shorter time. This longer break also tends toward a lessened yield of honey.

STRONG COLONIES.

"Swarthmore" further says, "It is certainly folly to go to all the trouble and expense of equipping colonies of only moderate strength with honey bees [honey boxes or sections, I think, was intended here instead of *bees*]; the bees will seldom occupy them with a will. It is far better to work half the number of hives in double strength than double the number in half strength." Here is something every beginner should heed, for it is something young bee-keepers are apt to overlook. The more this part is emphasized the better the success attending the new beginner in apiculture. It is like the Englishman's acre of ground, which is well enriched, tilled and worked, producing more than three of the Yankee's acres which are gone over in a slipshod way.

THE QUEEN FERTILIZING HER EGGS AT WILL.

I have read Chas. H. Peterson's article, found on pages 62-3, over several times, and I cannot help but think he has made a mistake somewhere. He tells about seeing his crippled queen lay "five or six eggs, while I was holding the frame, and in no case did she back into the cell to lay, but crawled directly over it and dropped the egg into the cell." This will do very well while he was holding the comb in a horizontal position: but how could the egg DROP into the cells when the comb was in a perpendicular position, as they always are while in the hive. Queens can only deposit eggs even on the sides of the cells, when the combs are in their natural position, through their backing into the cells enough so that at least the point of the abdomen is inserted, and unless his queen did this, the eggs in the cells which he saw could not be from his crippled queen. The solving of this matter, to my mind, would be this: The bees knew that this crippled queen was "no good," so they went about superseding her, raised a young queen, which deposited the eggs which he saw at the bottom of the cells, while the old one managed to deposit a few of her eggs on the sides of the cells. I had a case almost exactly like this a few years ago, and did not run across the young queen till I had looked into the hive three times, after finding eggs stuck on the sides of the cells. I saw these two queens on one occasion on the same comb, within an inch of each other, each doing egg laying the same as though the other was not there. I am glad Mr. Peterson gave his experience, as all of these things are good to show the different things bees will do: but I can hardly accept it as proof of that which he would have us believe, that the queen fertilizes her eggs at will. I am not saying that she may not do this, but I think it would not answer to base our belief that she does do so, on what Mr. Peterson saw.

THE WESTERN BEE-KEEPER.

I was very much pleased to note what was said about the demise of the *Western Bee-keeper*, page 69, and that there was *one* bee paper that could say a good word about a bee-paper born of good intent, struggled a little while to make the bee-keeping world better, and then died from lack of support. Surely, those words of yours, Mr. Editor, "the recognition, good-will and charity of the established journals are due the honest efforts of any brother: and such courtesies cost the donor but little." were well chosen. May charity, rather than selfishness, be the rule among the whole bee fraternity!

GRANULATED HONEY.

I wish to say amen to all that is said on pages 70-71, regarding honey in its granulated form. If the bee-keepers of the land had tried as hard to educate consumers regarding the merits of granulated honey as they did to put only liquid honey before the public, the call for liquid honey would have been changed to that of granulated honey, long ago. My customers, for the past five years, have all called for the granulated article, nearly all of them preferring to use it that way, while the convenience of carrying it home in a paper sack, or a box lined with paper, with no leaking or daubing of things with liquid honey, adds to the popularity of honey in its granulated form. That's right, Mr. editor, keep the ball a rolling; educate by all honorable means, in print and elsewhere, and the "permanent and profitable market for extracted honey" will soon be an assured fact.

Borodino, N.Y., April 6, 1900.

* * *

At the regular meeting of the Worcester Market Gardeners' Association, held recently in Worcester, Mass., "Bees" was the chief topic discussed, and preliminary steps were taken toward effecting an organization through which the gardeners and bee-keepers might co-operate in the future. The meeting was largely attended and a lively interest was taken in the questions by many prominent horticulturists, gardeners and bee-keepers.

To any reader who will send us five (5) new yearly subscribers for THE AMERICAN BEE-KEEPER, together with the $2.50 to pay for same, the editor will mail a nice untested Italian queen, without charge. These queens are sent direct from our apiaries in South Florida, and their safe arrival is guaranteed.

George C. Scott, in *American Bee Journal*, recommends the painting of all small tools, etc., about the apiary, red. The bright color, he finds, will attract the eye, and much inconvenience and possible loss of these necessary implements is thereby avoided.

THE AMERICAN BEE-KEEPER

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☞ Articles for publication or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Reports to hand from all sources indicate a general good condition of bees this spring. Many are already reporting favorable prospects for a good season and "lots of honey." According to the theories of several writers this report will seriously damage the honey market for 1900. We are sorry for the result (?) but that's the report.

There are a few in our ranks who persistently seek to criticise the policy or management of contemporary bee-journals and to vent their ill will toward some individual of the fraternity through THE AMERICAN BEE-KEEPER. Vindictive personalities are of no interest to the public; and under the present editorial management will not be given publicity in these columns.

A BEGINNER'S QUESTION.

A subscriber, who says he has just invested in a Doolittle feeder, enquires whether the bees will not be liable to build comb in it, should it chance to run short of feed.

A feeder is designed only to supply any deficiency in stores which may occur, or for stimulative purposes. When the object of its use has been accomplished it should be removed from the hive and frames of comb or foundation be inserted in its place. It would be possible to induce bees to use it, as suggested, only by a good flow from outside sources and intensely crowding the colony. There would be no occasion for having the feeder in the hive at the time when comb-building was being pursued with the vigor necessary to cause the bees to utilize such a narrow space, separated from the other combs by walls, as it would be.

ARRANGEMENT OF COMBS IN THE BROOD CHAMBER.

A long talk on the subject of selecting suitable combs for the brood nest would hardly prove of interest to the bee-keeper of ordinary experience; yet, some observations of gross negligence in this respect lead us to believe that a few suggestions would not be altogether amiss.

Worker bees are necessary to gather the honey crop. and they cannot be reared in drone combs. It is of the utmost importance that an ample supply of good worker comb is accessible for the use of the queen; and the time frequently wasted—to the absolute detriment of the colony—by the beginner, in "looking for the queen," might be profitably employed in arranging the brood combs to the best advantage, and otherwise assisting the development of an adequate force of workers for the harvest.

If, for any reason, combs containing a quantity of drone cells are found in the brood nest, they should be placed at the outside, raised to the upper story or entirely removed from the hive. The drone cells may be cut from such combs and pieces of worker comb neatly fitted in.

It is not alone by the exclusion of drone comb from the brood-nest that the colony's wellbeing is advanced, but by the exercise of careful thought in ascertaining the needs of the case in hand, and a practical application of that thought.

A GOOD WORD FOR THE CARNIOLANS—ONE ADVANTAGE OF THE CYPRIAN.

The following extract from a letter dated April 9, 1900, from Mr. H. M. Jameson, Corona, Cal., reveals a possibility of utilizing to advantage the fiendish trait of the Cyprians. Mr. Jameson, with us, seems to have acquired the notion that Cyprians will sting. Sure they are not Syrians, Mr. H.? However, here is his new idea:

> Say, Mr. Hill, the Carniolan bee seems to do extra fine here. They breed up strong, and catch the orange bloom. They do not wait for warm weather, like the Italians. They even start their brood-nest in cool weather on the north side of the hive. We are to have a bad season again; but I am rather favorably located. I have mountain and valley range. The orange now and alfalfa all

summer. I do not look for much honey, but the bees are all right. I intend starting an out yard and, contrary to your advice, it will be stocked with "Cyps." I want them to *sting off the thieves.* Truly yours,

H. M. JAMESON.

QUEENLESS—HOW TO KNOW IT.

A number of our readers yet young in the business, have recently written us expressing the opinion that one or more of their colonies were queenless. In several instances the conclusions were based upon some exterior appearance, peculiar action of the bees, strange humming sounds, etc. Some of these have been answered privately, as requested; and we here take occasion to assure every reader of THE AERICAN BEE-KEEPER of our pleasure in being thus able to render any service of this kind, and trust that none will hesitate to ask our opinion or advice, when it is desired, upon any matter pertaining to bee-keeping. Upon this question of queenlessness, addressing the younger members of the fraternity, to whom it appears a perplexing problem, we would say: Queenlessness may be easily and positively determined early in the season by an examination of the brood combs. If no eggs or larvæ are present, it will be known that the colony is without a queen. When, however, a colony has been queenless a sufficient length of time for laying workers to have developed, the presence of eggs and larvæ in the combs does not indicate the presence of a queen. Some experience is essential in readily recognizing the work of a laying worker, though it is not at all difficult to the practiced eye of the apiarist. Should the eggs be evenly laid and uniformly placed, one in the center of each cell, the larvæ and capped brood in the several stages of development appear in a circular or oblong form upon the surface of the comb, no other evidence is required to establish the prosperous condition of the colony and proclaim the possession of a very desirable quality not shown by all queens.

The one condition most difficult to determine by the inexperienced is that of a weak colony—one having an insufficient stock of bees to cover and care for a brood-nest proportionate to the laying capacity of the queen. In such a case several eggs are frequently laid in a cell, and the work, in general appearance, in the earlier stages, is not unlike that of a laying worker. In such an instance, however, no eggs will be found in the drone cells, and the cappings will be found less convex than those over the brood of a laying worker, from which only drones are developed, whether the eggs are placed in worker or drone cells, though a preference for the latter is usually apparent.

ADULTERATION IN THE EAST—THE NEED OF PURE FOOD LAWS, BOTH STATE AND NATIONAL—A WARNING.

President E. R. Root, of the National Bee-keepers' Association, in his journal, *Gleanings in Bee-culture*, for April 1, has the following editorial:

> The following extracts from a private letter from a bee-keeper who is well up in the honey business, and who understands thoroughly the buying and selling of honey, tells a rather sad state of affairs regarding the Eastern markets. Read it carefully, and then write your senators and representatives, urging them to support any national pure-food measure that may come before them. At the pure-food congress, which assembled during the fore part of February, preparations were made to draft and present a bill, which will probably come up for consideration in both House and Senate in the near future. Do not

fail to write at once. The extract from the letter, omiting all names, is as follows:

"Gentlemen:—The writer was in New York yesterday, and found the extracted honey market in very bad condition. Messrs. ——— have 2,500 double cases in storage and $3,000 borrowed on the same. Messrs. ——— have a big stock consigned, and Mr. ——— has also a very good supply. It appears the National Biscuit Co. have not bought yet this year; when they do it generally makes a big hole in the market. There is a new enterprise started on the East Side, in which they are adulterating by the carload honey that will granulate in three days. It has the appearance of and tastes very much like honey; has about ten per cent. of the pure article in it. Twelve carloads have been turned out in the last sixty days. It sells for 5½ cents per pound."

The National Bee-keepers' Association is doing everything in its power to stem the tide of adulteration of honey; and we hope that, in the near future, it will present some interesting and startling facts. The condition of affairs, revealed in the extract above, should merit the careful consideration of every bee-keeper—especially those who have not joined the National Association, one of the objects of which is to make the mixing of glucose dangerous and unprofitable. Membership costs only a dollar, and one does not know how far that dollar will go when combined with other dollars from bee-keepers far and wide.

The state of affairs as indicated above shows that extracted honey may be a glut on the Eastern market this coming summer; and if bee-keepers in that portion of the country are wise, they will turn their attention largely to the production of *comb* honey, which cannot now be bought in the open market for love or money. It is gone, absolutely; but pure, extracted honey is a glut in the same market, just because twelve carloads of the adulterated stuff has been turned loose within the last sixty days, and which sells at 5½ cents.

I am placing this letter, giving the full facts, names and addresses before General Manager Secor, of the National Bee-keepers' Association, hoping that he may be able to do something to stop the rascals who are perpetrating this wrong on the bee-keepers of the East.

The injustice to honest producers resulting from such wholesale adulteration, must be apparent to all, as it must also be that our plain duty is to *stop it*. It is not as if we had no representative organization to deal with such problems; in that case the matter would indeed be serious. We may congratulate ourselves on having an efficient association at this time; and its board and executive staff being composed of men eminently qualified to guard our interests with vigilance and tact, should be a source of satisfaction and confidence. The case rests with the producers themselves. Shall we exterminate the offenders and reap the full rewards of our labor, or shall we indifferently permit the very foundation of our industry to be stealthily withdrawn by those engaged in the illegitimate practice of adulteration?

* * *

H. M. Jameson, Corona, Cal., uses a paint for hives made by mixing red ochre. kerosene and crude petroleum. Mr. Jameson finds the combination very satisfactory, and says the crude article may be had in his country for $1.50 a barrel.—*American Bee Journal.*

Editor AMERICAN BEE-KEEPER: I have four colonies of hybrid bees; they are rather cross. Last fall I packed the four in one large box, facing them toward the south-east. At this writing they have been out but three or four times; have plenty of honey, clean hives and very few died during the long winter. Yours, H. HAFFNER.

Leeper, Pa., Apr. 13, 1900.

J. H. Martin, in *Gleanings*, says of bee paralysis in California: "There is evidently not so much as there was two years ago, and at the end of two more dry years there will not be a complaint."

We are requested to advise our readers that the 1899 edition of the "A B C of Bee Culture" is about exhausted, and anyone expecting to order will do well to wait for the 1900 edition which is under way. It is being thoroughly revised again this year and a great deal of pains will be taken with the whole book. It is likely to be Sept. 1st or later before the new edition will be ready, but orders may be entered at any time and the new book will be sent as soon as ready.

Honey and Beeswax Market Report.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

BOSTON April 16.—Honey market very quiet. Stocks on hand very light yet fully equal to demand. High prices prevailing have had tendency to check consumption. Nominal price 18c. for fancy white, yet would be shaded if purchasers evince disposition to buy. No. 1, 14 @ 16c.; extracted 8½ for fancy white. No beeswax on hand.
BLAKE, SCOTT & LEE.

CHICAGO, April 19.—Very little trade in honey of any kind, this is usual at this time of year and stocks are well reduced, so that for fancy white comb of the coming crop a good demand should exist. A little choice has sold recently at 16c., but dark and mixed goods are slow of sale. Extracted white 8 @ 9c., amber 7 @ 8c., dark 6 @ 7c., according to quality and package. All beeswax sells on arrival at 25c. dark @ 28c. yellow.
R. A. BURNETT & CO.

BUFFALO, N.Y., April 20.—Supply of honey is very light but demand is excellent for the season. Fancy white comb is very much wanted; advise cleaning all up before berry season; 16 @ 17c. Extracted 5 @ 8c. as grade. Demand for beeswax fair, supply light, fancy pure 28 @ 30c., dark and poor 22 @ 25c.
BATTERSON & CO.

DETROIT, Mich., April 17.—Demand good, supply short, especially of first-class article; price of comb 14 @ 17c. Supply of beeswax medium, market firm at 26 @ 28c.
M. H. HUNT & SON.

KANSAS CITY, Mo., April 16.—Market well cleaned up on extracted and comb. Fair demand for comb at 13 @ 15c., and for extracted at 5½ @ 6½c. Supply of beeswax is light and demand is good at 23 @ 26c.
J. P. HAMBLIN & CO.

KANSAS CITY, Mo., April 17.—Our market is almost cleaned up on comb honey, and the demand is good at 13 @ 15c.; extracted 6 @ 8c. Good demand for beeswax at 22 @ 25c., supply light.
C. C. CLEMENS & CO.

Some People take a Bath in the Wash Tub;

still others pay out 50 cents and upward per week for using a bath tub open to Tom, Dick and Harry; but anyone would take a bath oftener and enjoy it much more who had one of our

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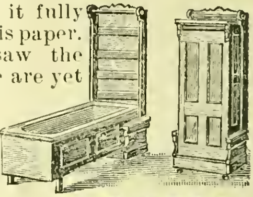

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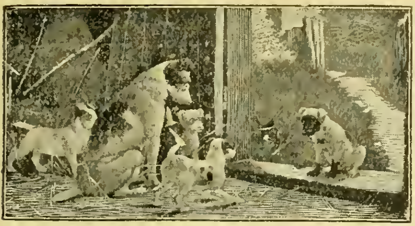

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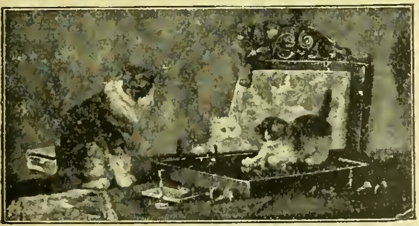

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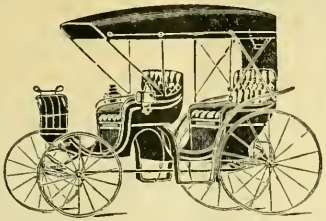

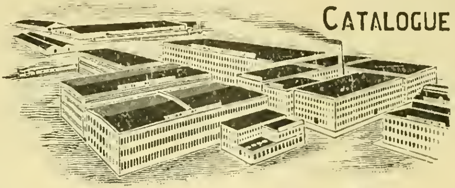

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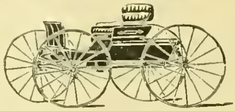

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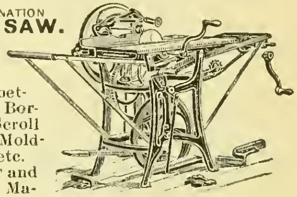

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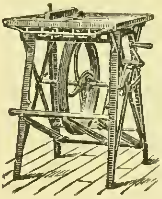

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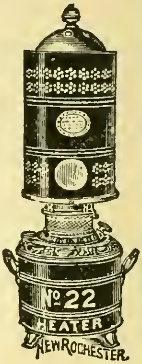

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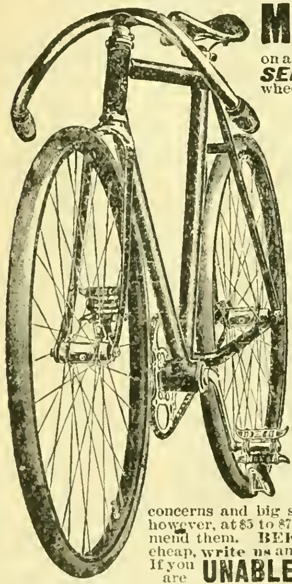

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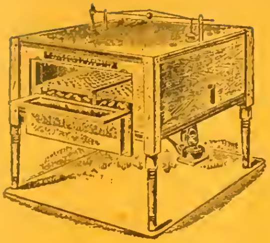
JUNE

1900

Vol. X

No. 6

Entered at the Postoffice, Falconer, N.Y., as second-class matter



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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X JUNE, 1900 No. 6

BEE CULTURE IN MAINE.

BY REV. C. M. HERRING.

TWENTY-SEVEN years' experience in bee culture has impressed me with the nature and importance of this business; so that, of the three departments of this work, I can speak with considerable confidence. Of the true *bee-man*, of the most desirable *bee*, and of the good *beehive* for northern states, I have my opinion, based upon my long experience; and of these I will speak briefly.

THE MAN.

The common man, with fixed will and purpose, may become successful in time; but to become a master in this art requires some natural aptitude for the work. For eminent success in this noble enterprise, nature must furnish the required talent. In this as in all other departments of labor, the man may mistake his calling. Once a neighbor of mine—a good farmer—caught the notion, from a desire of gain, to keep bees; and it was evident before long that his bees knew him to be a novice and a coward. With the greatest contempt for his unmanly conduct they would chase him from their grounds; and very soon it was seen that he and his bees were not in harmony. He could not understand the trouble, and began to change his hand. He gave his bees new hives; he put in full sheets of comb foundation; and so he went through with all the devices of modern times, calling on his neighbors to do his difficult work. Still there was continual defeat. Finally he and his bees parted—some to the woods, and more to the dust. The trouble was in the man: he lacked gumption.

But the real master puts his brains and his heart into his work; and as he studies and works among his pets, he soon finds his mind filled with admiration and love for these wonderful creatures of his care. His increasing affection for his bees brings him often to the hive, and they know his coming. His love for them "casteth out fear," and he soon finds that their *proper treatment*, and *harmony*, go hand in hand. Such, in short, is the man of suitable brain and heart who makes this business a success.

THE BEE.

All bees, like all stock, are not of equal value. As with horses, cows and sheep, blood will tell. We find it true of all organic life, that prolonged interbreeding of the same blood diminishes the vital forces: and also that continual crossing between the different races improves the stock. As it is true among all animals, vegetables and insects, so also of the bees, old varieties will finally run out.

About the first mistake the novice makes in starting his apiary is the notion that all bees are alike: and from the old box hive, in the country, where the bees are cheap and worthless, he seeks his supply. After making his purchase, he goes home, proud of his bargain, and he feels that now he is on the highway to the "land flowing with milk and honey:" but he soon finds that he is like the man "who leaped at stars and fastened in the mud." His bees are void of vigorous, vital forces and they become an easy prey to the larvæ of the miller. If he transfers them to a new hive he has the same patched-up comb and worn-out bees, which will be to him only a bill of expense.

As he flounders along in this way, with hardly a pound of honey for his trouble, he calls it "hard luck," until finally his bees hibernate in the sleep of death. The trouble is in his bees. They lack blood. The Italians are a well tried race; and these, crossed with several other kinds, make the best of workers.

REV. CHAS. M. HERRING.

THE HIVE.

The beehive is the home and work shop of a very numerous family. Houses and homes are of endless variety, made to suit the climate. A slight affair may answer for the sunny South; but for our latitude, where old King Frost holds dominion half the year, we need thick walls and double windows. For outdoor wintering the walls of a good hive should be of well-seasoned pine, 1½ inches thick. Such walls are better than chaff. In case of moisture within, they dry out quickly, while chaff walls, when once becoming wet, retain the moisture. In our climate, when old, stern winter tightens his grip, the sun delays his coming, the trees crack, the nails snap, and Jack Frost, everywhere busy, assails the hive by night, enters its vacant corners and drapes them with the frosts of death, all the winter suns combined cannot dislodge the enemy. The chaff walls, when once captured, are his protection and defense. Such is my observation in Maine.

Another good feature in a hive, for the North, is to have it constructed of such dimensions as to hold the bees in close proximity to their stores. In long, shoal frames bees often starve, in protracted cold weather when there is plenty of honey in remote cold ends and corners of the hive.

In this respect the Kidder frame is superior to the Langstroth, being shorter and deeper. If bees are wintered in the cellar almost any thickness of walls, or any dimensions of frames and hives will do good service.

Brunswick, Maine.

THE ITALIAN AND BLACK BROOD.

Some Comments on Dickel and His Theory.

BY F. GREINER.

THERE is another feature connected with the New York bee disease or black brood which ought to be brought out.

It has been observed by Prof. Benton and the foul-brood inspectors of our State that the Italian bee resists the disease when the native bee succumbs. This difference between the two races is so distinct that in some affected yards where the bees are of a mixed character, the surviving bees are all of the yellow race.

As a producer of comb honey I have not been able to see a sufficient advantage in it to Italianize all my colonies, and, although I have from year to year introduced new Italian blood, purchasing queens of many different breeders, my stock to-day shows much more the character of our native bee than that of the yellow bee. But now, since this black brood has made its appearance in our state and with it the danger of its spreading and visiting our own yards, I feel that it would be a measure of safety to radically change over to the Italian, and that the bee-keepers of our state would act wisely to consider this matter and then make an effort in the direction pointed out.

Very many of us bee-keepers here are pretty well satisfied that the Italian is inferior to the native as a comb honey producer, but that should not deter us from adopting this precautionary measure. There is nothing to hinder us from partially engaging in the production of extracted honey; in fact I find it much easier to run our apiaries both for comb and extracted honey instead of comb only. I may have to say something on that subject in the near future.

I notice in March number of The American Bee-keeper our old and esteemed friend Thielmann speaking of his experiments and observations along the line of the Dickel theory. As a word of caution and for the benefit of others who may think of testing the matter for themselves I want to say that it requires a great deal of care to conduct experiments of that order, lest the results may be misleading. According to Dickel an egg from drone comb, selected for an experiment, must be so fresh that not one bee has had an opportunity to touch it; it must be taken as soon as deposited by the queen. That a far-reaching influence is exerted upon each egg by the first bee that visits it has been proven repeatedly by Dickel and has not been contradicted to my knowledge. In case of the queen, as well as in case of the drone, the sex is decided by this first visit of a worker, and when the sexual development has once begun no after treatment can bring about any change. This peculiar feature of the Dickel theory has not been brought out sufficiently by other writers, and yet it is a most important one.

Mr. Dickel had edited the *Nordlinger Bienenzeitung* for about two-and-a-half years. During his editorship the circulation of the paper has more than doubled, and yet the paper has ceased to exist with Nos. 23 and 24 of the volume of 1899. Dr. Miller, in speaking of the "Death of the *Bienenzeitung*" says the following in a "Straw" in *Gleanings:* "Its able editors were succeeded by Herr Dickel, who used its pages to advocate his Dickel theory, and then it died." To tell half the truth is sometimes not telling the truth at all. In this case it leaves the reader with the impression that Mr. Dickel was not an able editor and that the paper ceased to exist because Dickel used its pages to advocate his theory. Neither is true! I have pointed out to Dr. Miller the unfairness of the way he has represented the matter and he attempts to set it right in March *Gleanings*, but utterly fails to do so. In justice to Mr. Dickel I must say the above. There were reasons why the paper was discontinued which were beyond the control of Mr. Dickel, who did not own the paper but simply acted as editor.

Whether the Dickel theory is right or wrong is another question and we will know more about that some future day. It is stated that Prof. Paulke has made microscopical examinations of 800 eggs taken from drone cells that had not been in the hive over twenty minutes and no trace of sperm was found except perhaps in three, while in the eggs taken from worker comb evidence of sperm was found. This, of course, is a point against Dickel; but, if it is possible, if one *does* succeed in producing both queen and drone from what is termed unfertilized eggs, or what amounts to the same, from fertilized eggs, then the result of the above examination amounts to nothing. All the scientists with all their microscopes cannot disprove a fact! Naples, N.Y., March 10, 1900.

COLD WEATHER PREVENTS BROOD-REARING.

BY M. F. REEVE.

COMPLAINTS of the backward spring and losses by continued cold winds were made at the meeting of the Philadelphia Bee-keepers' Association. The extremes of weather were so great as to make it severe upon the bees, very few colonies coming through in prime shape. And then the cold, backward spring had made brood-rearing almost impossible. The general concensus was that there was not enough brood-rearing to replace the natural losses of old bees, and that when, after a warm rain, the buds burst into bloom, there would be so few bees that the nectar would not be harvested. Vegetation was now up to date; but bees were a month behind.

"Spring management" was the main topic; one of the questions was: "Given a Queenless Colony and a Weak Colony with a Queen, What?" It was agreed that queens at this time of the year were either old or from the South, and worthless for this latitude without a honey flow; it would be difficult to get the workers to accept a queen of any kind. The oldest manipulators said it would be best to unite them, alternating the frames. An expert said it was a mistake to rob the strong to build up the weak until after the strong colony had cast a swarm, when there would be bees to spare.

Field meetings were arranged for May 26th, at Milmont; June 26th, at Pendleton's apiary, Germantown; June 23d, at Sonner's apiary, Palmyra, N. J.; July ——, Rehn's apiary, Collingdale, Pa., and sometime in September at the veteran Mark Schofield's place, at Seventy-first Street and Woodland Avenue, Philadelphia.

These outings are always enjoyable and the occasion of valuable experience to the amateur as well as professional. Mr. Schofield and Mr. Kruger are near neighbors and both are experts, and each has his own peculiar method of manipulation, extracted honey being their source of revenue; although each has a distinct business outside of the apiarian line. The former is attached to the leather-colored breed of Italians, and has quite a demand for his queens from this strain. "Keep your colonies strong," is the watch-word of each; and their hives are run on the "double-decker" principle. Their bees are cross; but they get there when the fall flowers are in bloom.

The weather became showery on the 17th and 18th, starting everything into growth, and bees into activity gathering pollen, although they had been flying off and on for two weeks past. It remains to be seen whether the buds will burst into bloom and there will be enough bees to garner the nectar harvest from the fruit trees. They have been around inspecting the gooseberry bushes.

Rutledge, Pa., Apr. 19, 1900.

CEMENT COATED NAILS.

A Simple Process Briefly Explained.

BY H. M. JAMESON.

Many readers of THE AMERICAN BEE-KEEPER, especially those living in localities remote from large towns, have at times been in need of cement-coated nails. Even in the larger cities it is at times difficult to obtain just what is desired, while the sizes you may want can be purchased at most hardware stores uncoated. The outfit required for preparing the nails is an old frying or stew pan and a little rosin. Place the pan containing the nails on the fire; stir them to get evenly heated. Try a few at first. Have a little powdered rosin, say one tablespoonfull to a pound of nails. When the nails begin to turn blue remove from the fire and immediately sift the rosin over the nails, stirring till all are smeared with the molten rosin. Now turn them out on a bench or board and spread out thin. You now have the genuine (so-called) cement-coated nails. One pound of rosin is sufficient to coat one hundred pounds of nails. Will some brother bee-keeper tell us how he succeeds with this method?

Corona, Cal., Apr. 9, 1900.

◆

CHIEF OF CUBAN BEE-KEEPERS.

REFERENCE has been made before in these columns to Dr. G. Garcia Viete, the gentleman who is reported to have harvested 380 tons of honey in a single season.

COLONEL G. GARCIA VIETE.

The American Bee-keeper takes pleasure in presenting herewith a portrait of Dr. Viete, together with one of Senor Carlos Sanz, who constitute a part of the firm operating this immense apiarian enterprise.

Before the Cuban war the doctor kept between 1,500 and 2,000 colonies, as stated by himself in The Bee-keeper for December, 1899, and he is again rapidly replenishing his former stock.

SEÑOR CARLOS SANZ.

We have also received photos of the large covered apiaries referred to in the article above mentioned, but sincerely regret that they are not sufficiently strong for reproduction in half-tone, as they give pleasing views of the long aisles between the hives and a good idea of the arrangement and magnitude of the business.

Dr. Viete held the rank of Colonel, and was Chief of Staff of the First Army Corps in the recent strife for independence. He was for some time Chief Health Officer of the city of Cienfuegos, and has but recently been appointed by Governor-general Wood, Director of the civil hospital of that place.

During the past year the apiaries have been run for increase, but the collective force will be applied to honey gathering upon a return of the harvest season and we should not be at all surprised if some of Dr. Viete's future reports will pale the 760,000 pounds which, as his season's crop, created so much comment in the past.

We have never met Senor Sanz, and regret that our information concerning his bee-keeping career ends with the fact that he is associated with Col. Viete in the business. The engraving of the Colonel is from an amateur photo, though a good likeness.

That these gentlemen are successful and enterprising bee-keepers need not be said; it is self-evident.

THE MAY BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

PERHAPS our heading will not be fully appropriate this time, for I wish to touch on a few things found in the May BEE-KEEPER which I cannot think of as entirely good. But as I shall also touch on some of the good things, we'll let the heading stand without change.

SELLING THROUGH THE COMMISSION MAN.

On page 82 Bro. Marks "sails into" the commission men in rather a wholesale and most unmerciful way—that is, from my standpoint he does so. I have shipped my honey on commission ever since 1877, and his assertion that "our products, through the prevailing method of sale, is at the mercy of the most unscrupulous commission man," is not the truth, by any means, according to my experience. To be sure, I have run across unscrupulous commission men during that time, and I now know of some who will drop off honey, or any other products at a lower price, by 25 per cent. than the goods are really worth, or quoted at. But I cannot allow that these unscrupulous ones "who sell the lowest, establish the price," for all of my experience, covering a period of 23 years, tells me that there are many commission men in the cities of Boston, New York and Philadelphia who do not even so much as "wink" at the prices made by these unscrupulous ones. Therefore, Bro. Marks' assertion that "the honest commission man; the one who would get full value, is not in it," is very far from the truth. I could name parties handling honey in each of the cities above mentioned who have sold my honey each year for the past twelve years, at from one to three cents per pound above the prices quoted in the *Producers' Price Current*, and from the same price to one and two cents above the prices quoted in our bee-papers for those same cities. Brother Marks must have had in mind the poorest specimen of a commission man and compared him with the best dealer when he penned those words, very much as the world takes the poorest specimen of a Christian and holds him up beside the best worldling, when christianity is to be scoffed at. Don't do it, Bro. Marks; it isn't nice.

COMMISSION MEN UNDER STATE AND NATIONAL SUPERVISION.

But, looking at the commission men in the light in which Bro. Marks did, I cannot, "for the life of me," see how he came to pen these words, found near the close of his address: "But there is one thing can and should be done, at once. Commission houses, handling as they do, millions of dollars of other people's money, should be put under state and national supervision, the same as banking." Following out that idea, the commission men would rule the state and nation to the same extent that the banks do, which is very nearly to having their wants all supplied through the sweat and toil of the masses, by the unjust laws they are enabled to secure through our (?) bought representatives. I have not time, nor is this the place to discuss "our banking system," but any one who will take the time to study up our National and other Bank Acts, will soon understand how our bankers are among the favored few of our nation, and go up into the hundreds of thousands, and millions of dollars, without doing scarcely any labor along an economic line, while the bee-keeper toils on day after day only to see much of his earnings going to support these bankers in their fleecing of the people. Again I say to Bro. Marks, Don't do it! Don't set the commission men after us through state and national supervision, for if you do I cannot vouch even for the honest ones; for when feeding at the government trough the best of men seem to lose their heads.

QUEEN REARING.

Bro. Pridgen's article commencing on page 82 is a very readable one and contains lots of good things, among which I find him touching on something which I do not remember ever seeing touched upon before. On page 83, near center of last column, he speaks of honey flows being so "heavy and sudden as to check swarming." He here speaks of this matter as coming before preparations have been made for swarming; but with me I have had several years in which swarming was great—in some of them it became almost a mania—when from six to fifteen swarms would be out daily, and just as soon as the honey harvest came on in good earnest, the issuing of swarms would drop off in a day or two to from none to only two or three a day for the first week, and soon cease altogether. It is the slow continuous yield of one, two or three pounds of nectar (not honey) a day that keeps an apiary on the swarm, to the disgust of the apiarist.

"PURCHASE OF QUEENS A WASTE OF TIME AND MONEY."

When Bro. Pridgen wrote the words found in the upper part of the first column, on page 83: "Unless one studies the traits of the different races and manipulates them accordingly, the purchase of queens is a waste of time and money," I hardly think he stopped to weigh them fully, as he usually does when he writes, for I do not think he is willing to admit that there has been no improvement in bees during the past fifty years, even where managed on the let-alone plan. I have many testimonials telling me that the introduction of my queens into their apiaries, managed on the let-alone plan, has increased the crop of honey more than ten times the value of what was paid for the queens. I am wide awake as to the study and manipulation part, and had these parties used that also, they would have made a corresponding gain; but unless I am greatly mistaken, any man who is now keping scrub bees (or those who have depended upon "the survival of the fittest"), would not find it a waste of time and money did they purchase a few of Bro. Pridgen's fine queens, and after putting them in their hives, manage them the same as before. Otherwise all our efforts at breeding a superior bee has been labor thrown away, except to those who are given to study and manipulation.

RIPE CELLS BEFORE THE PRIME SWARM LEAVES.

Near the center of the first column, page 85, Bro. Pridgen touches another thing which every beginner and many older bee-keepers should pay attention to, where he says, "It is occasionally the case that cells are ripe before the prime swarm leaves the hive, and especially if the weather has been unfavorable for some days, and the swarm issues the first day that is suitable." By paying attention to this matter they will not be watching for second swarms from such hives, eight or ten days later, nor will they come to the bee-papers with reports of queens fertile and laying two or three days after maturity. Then by understanding this, colonies can often be prevented from swarming at all by taking away the old queen and cutting all cells as soon as the queen from the ripe cell has emerged. Or, increase can be prevented by taking queen from the swarm and returning it after all queen cells have been cut, the queen from the ripe cell being now at liberty. These little kinks are all valuable and go toward helping make up the full fledged bee-keeper.

SECRET OF SUCCESSFUL HONEY PRODUCTION.

At the bottom of the last column, page 86, is a [great big] little item, taken from the *Review*. Turn back and read it again. Do you believe it? If "one of the greatest secrets of successful honey production is that of having a great force of field workers during the honey harvest," is the truth, will it not pay big money to work for that great force? Yet how many who read this really work for such force. Those who do not cannot call themselves a "great success" at bee-keeping. But there is a little item left out which ought to have been included with what is given. Including it, the item would read, "One of the greatest secrets of successful honey production is that of having a great force of field workers during honey harvest *with no disposition or effort to swarm*." Unless this latter is included, the whole harvest may be frittered away in dividing up that "great force" till not a pound of surplus honey is obtained, or the whole force sulking and fooling the time away in the vain attempt at dividing up where hindered in the attempt, by methods generally practiced. To manage bees that a great field force can be on hand during the honey flow, with no desire to swarm, is something worthy of the best attention of the apiarists of the present time.

There are still left more good things in the May Bee-keeper, which I had marked, and desired to touch upon, but time and space forbid. Read carefully the whole issue; there is much in it.

Borodino, N. Y., May 5, 1900.

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Read our Clubbing List on 3rd pp. cover.

VIRGIN QUEENS.

The Effects of Keeping them Caged, Etc.

BY W. H. PRIDGEN.

MR. DOOLITTLE, in the May 1st *Gleanings*, gives the keeping of virgin queens from the bees the black eye. Has learned that they should be in immediate touch with the bees at all times, after many years of careful watching, and has given up the idea of introducing old virgins to save time.

I never did much of this, as I soon learned that I could get a laying queen from one just hatched, about as soon; but as I can gain from one to three days by giving the just hatched downy misses, with the assurance that as few will be rejected as there are cells that fail to hatch, and are torn down, I would be glad for Bro. Doolittle to tell us if he thinks they are really injured at all when only allowed to remain caged a few hours at most, and especially if kept at the temperature of a strong colony.

I keep my cells in immediate touch of the bees until the time for distribution, and then keep them where the queens emerge sooner than is often the case if given to nuclei, and especially early in the season, and in nuclei newly formed.

At any rate, according to Bro. Doolittle's figures, their life and usefulness is not shortened much, his estimate being that it is "at the rate of three months for every day thus kept away from the bees." If he is right, which I am not disputing—and I believe he is right in a measure—I have a queen doing good service that should show the age of four and a half years. For experimental purposes I kept her in the nursery twelve days and caged in the colony to which she was introduced, three days more, last July. She is now active, fresh and nice looking, and is possibly an exception to the rule.

It seems that some consider the use of

floats in the Doolittle feeders necessary, while others consider them a nuisance. A writer, I think, in the *Amer. Bee Journal*, called attention to the fact that they sometimes stick to the sides of the feeder until considerable feed is removed from below, and then fall in catching many bees under them. This trouble, I think, could be overcome by driving two small staples or shot-head tacks in each side and one at each end of the float, then their use no doubt would save the trouble of licking many unfortunate bees that fall in and manage to scuffle out the best they can.

Creek, N. C.

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For Free Distribution.

"Bees and Horticulture—their Relations Mutual," is the title of a twelve-page pamphlet recently published by the National Bee-keepers' Association. It is a compilation of important facts and general information relating to their mutual inter-dependence together with numerous suggestions regarding the spraying of fruit trees, the laws regulating the practice in several states, and instructive quotations from authorities everywhere. The pamphlet is by Hon. Eugene Secor, Forest City, Iowa. treasurer and general manager of the National Association, to whom we are indebted for a copy, and to whom application should be made for as many copies as can be judiciously used. It is designed as an educator along the line which its name indicates, and is sent free to those who write for it. Good results should follow a liberal circulation of such a paper.

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Apple trees are O. K. for shade. but when the apples drop on the hives it is not so nice. I like mulberry best of all, for more reasons than one. Chickens are a nice accompaniment for bees and they are very fond of the berries. The birds that come for the berries add new life to the apiary; besides, if a swarm issues it can be easily brought down from a mulberry.—J. O. Grimsley.

Bleaching Pollen-Stained Cappings.

Mr. Byron Walker, Evart, Mich., is an extensive producer and dealer in honey. According to *Gleanings*, when Mr. Walker has a lot of comb honey, the cappings of which is pollen-stained, the surface of the combs is exposed to the sun for two or three days, the result being that their original snowy whiteness is restored, thus fitting them for a higher grade in the market. Though no mention of the point is made, we think it would be necessary to exercise some precaution on very hot days to guard against the possibility of melting. A free circulation of air would prevent any such trouble.

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We are in receipt of a letter from Mr. Major, the famous cement man, of New York, in which he sets forth some very interesting facts about Major's Cement. The multitudes who use this standard article know it is better than other cements for which similar claims are made, but a great many do not know why. The simple reason is that Mr. Major uses the best materials ever discovered and some other manufacturers do not use them because they are too expensive and do not allow large profits. Mr. Major tells us that one of the elements of his cement costs $3.75 a pound, and another costs $2.65 a gallon, while a large share of the so-called cements and liquid glue upon the market are nothing more than sixteen-cent glue, dissolved in water or citric acid, and in some cases altered slightly in color and odor by the addition of cheap and useless materials. Mr. Major's advertising now amounts to over $5,000 a month throughout the country. If you are at all handy (and you will be likely to find that you are a good deal more so than you imagine) you can repair your rubber boots and family shoes and any other rubber and leather articles with Major's Rubber Cement and Major's Leather Cement.

Ira Barber, in the *Review*, after pretty thoroughly establishing his claim, that bees will gather honey at a distance of eight to ten miles from the hive, remarks: "Bees appear to prefer to go a long distance to gather honey, when there is plenty near by."

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Editorial

Australia's trouble this year is to produce honey with which to supply the demand; last year it was to create a demand for that produced.

The old "Wiley lie," regarding the manufacture of artificial comb honey, appears to have lost none of its original charms for the newspaper man by whom it is yet published as a news item, with some slight alteration, substantially as it appeared in the *Popular Science Monthly* seventeen years ago.

A Jamaican correspondent says he rears about 250 queens a month. The bar to which the cell-cups are attached he has beveled from the outer edges to the center, below. This gives the cells a slight outward tilt, as a row of cups is placed on either side, so that while the cells are really more compact in the brood nest the bees have free communication through and around them.

Mr. Thos. Chantry, President of the South Dakota State Bee-keepers' Association, writes that his apiary of over 300 colonies came through the past winter in excellent condition. Mr. Chantry has been selecting from the best of his stock, as breeders, for the last 23 years, and as a result has bred up a strain of bees that are hard to excel as comb honey producers. "Comb" is Mr. Chantry's specialty.

Secretary C. H. Clayton, of the California Bee-keepers' Exchange, has a very interesting article in *Gleanings*, which forcibly presents the necessity for co-operative action among bee-keepers. Mr. Clayton regards such a movement as the only solution of the market problem, and through its adoption evidently foresees the establishment of business conditions satisfactorily profitable to the producer of honey.

Mr. Harry S. Howe, the "lightning bee operator," formerly with W. L. Coggshall of West Groton, N.Y., now of Cuba, W. I., we regret to learn by a recent letter has found it necessary to undergo treatment at a hospital, for heart trouble. "Too much bicycle," Mr. Howe says, was the immediate cause of his indisposition. While at the hospital Mr. Howe was at times able to exercise moderately, and availed himself of the privilege of using the laboratory of the institution in investigating the nature of "black brood," from which disease, he says, very few apiaries in that part of Cuba are free.

FOUL BROOD IN CUBA.

Commenting on our editorial, page 54, "Foul Brood in Cuba," the *American Bee Journal* asks: "If Mr. Rockenback's testimony is thought hardly reliable, what will Mr. Hill do with Harry Howe's, which was given on page 185 last week? Mr. Howe's simply corroborates Mr. Rockenbeck's, or is even stronger." In order that the reader may judge for himself how badly Mr. Howe is discouraged we here give his comments entirely. This is what he says:

> Bees are swarming here now. Foul brood is really much worse than has been described in the papers. Nearly every apiary in Cuba has it. I have gone into partnership with a Cuban who owns about seven thousand acres of fine honey country, to put in bee ranches to the tune of two thousand colonies. This gives me entire control of my bee range.—HARRY HOWE.

We have no inclination to "do" anything with Mr. Howe's testimony; but anyone ordinarily astute might have read enough between the lines of the articles in question to have realized the impertinence of such a comment. We have, for the past fifteen years, been intensely interested in Cuba's apicultural advancement, have very closely observed everything coming before our notice pertaining to the matter, and, during the greater part of that time have been more or less closely in touch with problems with which it might be affected. That a malignant form of foul brood is prevalent in portions of Cuba at this time, no well-informed person will question. Neither will any one conversant with the general situation there believe that the whole island is rotten from end to end.

Since the expression of our doubts as to the validity of such a sweeping report, we have received a private letter from Colonel Viete, whose picture appears in this number of THE BEE-KEEPER, from which we will take the liberty of quoting. "I am surprised to hear so much about foul brood; in this part of the island we have none, and my bees are doing beautifully." Will the *Journal* regard this as tending to justify a degree of incredulity?

AFTER THE ADULTERATORS.

The work of ferreting out and punishing adulterators of honey, by the National Bee-keepers' Association, has begun in earnest, and some developments of a sensational character may come to pass. As every bee-keeper is interested in maintaining the purity of, and thereby establishing remunerative prices and a greater demand for, our product, we have, after some deliberation, decided that readers of THE BEE-KEEPER would be sufficiently interested in the details of one case to justify its entire publication. A conception of the extent of the undertaking to suppress the adulteration of honey, may be somewhat aided by a study of the complex situation revealed in the following case, in which the crime of adulteration is laid at the door of a bee-keeper whose name is a household word throughout beedom—known and respected wherever modern methods are practiced in the art of bee-keeping. While the law is not, and should not be, a respecter of persons, and while we strongly advise tracing the evil to its source and administering merited punishment to the guilty ones, whoever they may be, we believe it would be unjust to publish the name of the person upon whom suspicion seems to rest, without further investigation and proof; especially as he stoutly maintains his innocence and declares that the goods he shipped to Mr. Hakes was "Pure Basswood Honey, with a big P" for pure. We therefore withhold the gentleman's name, for the present at least, and patiently await developments.

Following is a complete report of the case, with name omitted:

Station B, Toledo, O., April 5, 1900.

EUGENE SECOR, General Manager of the National Bee-keepers' Association.

Dear Sir: In complying with your request for a report of the proceedings in the case of M. G. Hakes, of Jackson, Mich., who was arrested, and tried in the Circuit Court of Jackson County, for the sale of adulterated honey, I have this to report:

On the 20th of January last, I received a request from you to attend the trial of Mr. Hakes, as the representative of our Association, and do what I could to help in the prosecution of the case that was to be tried on the 22nd. In compliance with your request I attended the trial. I learned that last fall, Mr. W. D. Soper, a bee-keeper living near Jackson, Mich., and who also deals in honey, discovered that what he thought was adulterated extracted honey was being placed upon the market at Jackson. He bought a sample of the honey and sent it to the Michigan State Dairy and Food Commissioner. On September 29, 1899, Mr. Carl Franke, a State Food Inspector, of Monroe, on his regular inspection tour at Jackson, called at Mr. Hakes' place of business and purchased of him two one-pint cans of what he was selling for honey, one of them being labeled and ready for the market, and the other was taken from the original package, a five-gallon can. Mr. Franke had explained to Mr. Hakes that it was his duty "to keep tab on all the foods that were exposed for sale, and also on honeys," and asked him to sell him a package of honey, which he did willingly. The cans were labeled "M. G. Hakes, Pure Honey, Jackson, Mich."

At the trial of Mr. Hakes in the Circuit Court for the County, in Jackson, Mr. Franke stated, in substance, while on the witness stand, that when food samples were procured for inspection certain records were made, and in this case the record of the inspector showed that, in the sale of this adulterated honey, Martin G. Hakes acted as agent, and that the manufacturer was ——— ——— and the package was marked "Pure Extracted Honey," and was purchased of Mr. ——— about Aug. 21, 1899.

Another witness, the Food and Sanitary Inspector of Jackson, testified that the original package from which the sample of honey in question was taken had not been opened till Mr. Franke opened it, and that Mr. Hakes acted as agent for ———.

Mr. Franke, on cross-examination, testified that other samples from Mr. ———'s "factory" than the one under consideration had been sent to the State Analyst, and all were adulterated to about the same extent as this, except one of comb honey.

Mr. R. E. Doolittle, State Chemist, of Lansing, Mich., testified to having examined the sample under consideration, and found it to be adulterated honey. The per cent. of adulteration I do not now remember, but it was large; I believe about 57 per cent. of glucose.

Mr. Doolittle, in reply to a question by the attorney for Mr. Hakes, said that he had always had the impression that Mr. Hakes was only the agent for Mr. ———, and that Mr. ——— had done the mixing.

In reply to the question, "Was this honey represented to you as pure by Mr. ———?" Mr. Hakes testified that a few days before he was arrested (he was arrested Oct. 11, 1899), he was told that he was selling adulterated honey, and he said that he wrote Mr. ——— a letter, telling him that one man, a stranger, had offered to bet him $25 that the honey was not pure, and Mr. Hakes told him that he "would put up the money with him any minute; but before I would do it I sat down and wrote a letter to Mr. ——— and said to him, 'I want to know, now, Mr. ———, if I am selling pure honey or if I am not.' He wrote me back, stating that 'If my honey goes from me to you, and from you directly to your customers, just as you get it from me, rely upon it, it is strictly pure; but,' said he, 'I would not bet.' That is the first thing that opened my eyes."

At the close of Mr. Hakes' testimony the court instructed the jury, and they returned a verdict of guilty, without leaving their seats.

I felt pretty well satisfied that Mr. Hakes supposed he was selling pure honey, and I believed that the members of our Association cared more for the conviction of those guilty of selling adulterated honey, and stopping the practice, than to punish a party who seemed so innocent of fraud as Mr. Hakes seemed to be; and, being under that impression, I asked the Court to impose the lightest penalty the law would allow, which the Court did, fining him $25, which, I believe, was paid by some of Mr. Hakes' friends.

As an officer of an organization that has for one of its objects the prevention of adulteration of honey, I was very much interested in this case; and as the evidence seemed to indicate that Mr. ——— was guilty of selling adulterated honey, and that he did the adulterating himself, I have taken some pains to learn if he really was engaged in such business and the first thing to hand is Bulletin No. 50, of the Michican Dairy and Food Department, and under the head of "Honey" I find this:

"No. A, 298. Sample of honey (brand 'Pure Extracted Honey') taken from original package at Jackson. Sold (1899) by M. G. Hakes, agent, Jackson. Producer, —— ——, ——." Then follows a statement of the analysis of the sample and following this are the words, "Glucose flavored with honey."

On the same page of the bulletin on which the above appears are three other similar reports in which each sample examined was marked "Pure Extracted Honey. Producer, —— ——, ——," and on each exhibit is marked, "Glucose flavored with honey."

On the next page of the bulletin are two more reports similar to the above in which ——— appears as the "producer" and Mr. Hakes as "agent," and I believe it is claimed there was about the same amount of adulteration in each sample as in the one for the sale of which Mr. Hakes was convicted—about 57 per cent.

In an article, which appeared in the *Farm Journal*, of Philadelphia, for January, 1900, in an editorial under the heading, "Food Adulterations," the editor says: "Some important facts on this subject are found in the recently issued bulletin No. 50, of the Dairy and Food Department of the State of Michigan. * * * Eight samples of honey variously marked as 'Pure Extracted,' 'York State,' etc., were found to be only glucose flavored with honey. Six of these samples claimed to be produced by a person having a name well known and honored among bee-keepers," etc. The other two samples are marked "Producer, Steel-Wedels Co., Chicago, Ill."

On Feb. 8, 1900, Mr. Wm. A. Selser, chemist, of Philadelphia, makes this report: "This is to certify that I have analyzed the sample of honey sent, marked No. 1, bought of ——— ———, by L. H. Warren, Jennings, Mo., and found the same to be 52 per cent. to 54 per cent. adulteration of glucose;" and on the same date Mr. Selser certifies that another sample sent him was "bought of ——— ———, by L. H Warren, Jennings, Mo.," was found to contain "58 per cent. to 60 per cent. of glucose."

Wishing to know what Mr. Warren had to say, I wrote him March 12, ult., and in his reply, dated March 17, 1900, he says, "I bought seventy sixty-pound cans of extracted honey from ——— ———, which I received as follows," and gives the number of cans received at different times: Five cans in September, 1899; fifteen cans at each of two shipments in November, and thirty-five cans by two shipments in December.

Mr. Warren says, "It may seem strange to you that I bought so much, and will explain: The first lot of five cans which I got as a sort of sample, was adulterated very little; but every lot got worse. A small sample of this lot which I have on hand now, has granulated solid, but streaked; another lot only looks cloudy. * * * The last lot does not granulate any more than any other glucose. * * * Analysis of this shows 58 per cent. to 60 per cent. glucose. * * * Only about two hundred pounds of this last lot was turned back on me. I had no suspicion of this honey being adulterated until I had disposed of nearly all of it. * * * After I had found out that the honey was not pure, I wrote to ——— asking for a written guarantee of its purity. * * * He wrote back, 'I take pleasure in certifying that I shipped you pure, extracted honey.'"

Mr. Warren is a member of the firm of Warren & Mange, dealers in staple and fancy groceries, flour, feed and general merchandise.

In a letter written by Mr. ———, on February 15, 1900, he says that Hakes "never sold honey for me. *He bought of me*, paying cash in advance. * * * I shipped him *pure* honey, and I rather *think* that he sold it as I shipped it to him. Of course I do not *know*; and, so far as my *personal* interest is concerned, *I do not care*. * * * I think I have had ample evidence that chemists cannot tell adulterated from pure honey. * * * It appears they *guess* at it. * * * In view of Mr. Hakes' testimony, as reported from his customers, if the honey I sent him was adulterated, it would probably be beneficial to both producers and consumers if all honey was adulterated in the same way."

Several years ago, perhaps twelve or thirteen, some well-known bee-keepers felt satisfied that Mr. ——— was engaged in adulterating honey, and selling it to his customers, and since that time several have complained that the honey purchased of him was adulterated before it reached them, and have stated that the packages they received showed no signs of having been changed or tampered with in any way from the time they were shipped till received by them.

A little over six years ago there was an impression that Mr. ——— was engaged in adulterating honey; and a chemical analysis of some honey claimed to have been bought of him, showed that it was adulterated with at least 50 per cent. of glucose, as was shown in *Gleanings in Bee Culture* at that time.

It is possible that this report is too long, and may contain matter that may not have any bearing on or connection with it; but I thought it might be well in every possible way, to expose the adulterators, whoever they may be, and so put producers, dealers and consumers on their guard against adulterators; and if only a small portion of the statements and affidavits before me are true, one of our number has gone astray, and if so, should be exposed.

UNITED STATES BEE-KEEPERS' ASSOCIATION.

Secretary—Dr. A. B. Mason, Station B, Toledo, Ohio.

General Manager and Treasurer—Hon. Eugene Secor, Forest City, Ia.

Know your customer, and suit your package to your trade.—C. A. Hatch in *Gleanings*.

OUR EXTRACTOR

From the *American Bee Journal.*

MARKETING EXTRACTED HONEY—MAKING IT A STAPLE.

* * * * * *

Must we acknowledge that there is by all odds more of comb honey eaten as a sweet than of extracted? It surely looks that way. Mr. E. R. Root, in a paper before the Philadelphia convention *estimated* that the annual product of comb honey was perhaps 50,000,000 pounds and that of extracted probably twice as much, or 100,000,000. I also glean from the bee-papers of late that there are single firms that consume from 200,000 to 300,000 pounds. If such large quantities be used by single maufactories, surely the great number of firms consuming in baking and the many other uses to which honey is put in the arts, there must be but a small portion of the 100,000,000 pounds that gets to the table as a syrup. Knowing that the great bulk of comb honey is used on the *table*, and yet it is a very *rare* article among the masses, we must conclude that extracted is comparatively unknown to the great bulk of consumers of sweets.

I began here about eight years ago to sell extracted honey, and a few hundred pounds was all that was sold in the community, but now I can sell almost as many thousands as I then did of hundreds. My local trade has increased year by year, until now I can sell almost a carload a year to a village of less than 2,000 inhabitants, together with the surrounding farm community. Even at this rate there are many families who do not use honey and many others that use it only as a luxury now and then.

That there is a very large per cent.—yes, the great majority—of our population who do not use honey, is a fact. Those people who do not would use it if it were as *accessible* as other sweets, and compared favorably in price. I make this statement without fear of successful contradiction. I have proven it right here and others have done the same thing in other localities.

WHY IS HONEY NOT USED?

A business man who is always out of

certain goods, cannot expect a good trade in that line. Honey is *not* kept by even the majority of stores, either comb or extracted *regularly*, and at prices to compare with other sweets of the same grade, while the other sweets are in *all* stores. How long would a store do business if sugar and syrup were not kept in stock, except in cities large enough to run with a limited line in any one store—the various stores making a specialty of certain goods? A common country or village store, and as well the greater part of city stores, could not hold their customers if they did not keep staple sweets. Honey must be kept in stock and offered *regularly* as other goods to be regularly used. These are self-evident truths. Any one who attempts to make a staple sweet of honey, and not keep it in stock, will surely fail. Failure along this line is common—very common—with grocers as well as bee-keepers, in working up a honey trade.

Another reason why people do not buy extracted honey is because it is too expensive—there is too much expense between production and consumption. From here to Chicago the present rate on extracted honey is 97 cents per hundred pounds. Suppose I ship ten cases of honey to any dealer there, and charge him 6 cents f. o. b. here, he pays 97 cents per hundred *gross* weight, which is just about even $13 on the lot. A lot of 1,200 pounds at 6 cents is $72; plus $13 freight, and the honey costs on the car at Chicago 7½ cents per pound.

If the buyer in the city puts his money into the honey he will not want to sell again for a bit less than ten per cent. advance, perhaps usually not less than 20 per cent. If he were selling to manufacturers in original packages and in large lots the margin may be quite small; but if it goes for table use, and he sells in the original package to go into families by the 60-pound can, there can not be less than 30 per cent. added—the wholesale dealer 10, and the retailer 20. Cost of honey—ten cases—on car in Chicago, $85; plus 30 per cent. for dealers, total $110.50; or about 9 1-5 cents per pound it costs the consumer.

To repack this honey would cost quite a little, but I scarcely know how much to estimate, much depending upon the equipment for doing the work; we will drop that item and see about cost of packages. The very cheapest tin package will cost at least one cent per pound while glass packages cost from three to four cents per pound. This makes the cost of the honey about an average of 12½ cents per pound when it gets to the consumer.

Extracted honey shipped to market in 60-pound cans and repacked for retail trade costs the consumer at least 12½ cents, many times considerably over this—12½ is very conservative. Now buy six cents worth of granulated sugar, make a syrup by adding a little water, then place this beside twelve cents worth of honey and see how many customers will buy the sugar rather than the honey. Sugar competes with extracted honey and there is no use in ignoring the fact.

THE REMEDY IN THE MATTER.

The *producer* must pack his honey *in retail packages* and case it in some way that it may be handled cheaply. One great trouble with apiarists themselves is, first putting up honey in barrels or sixty-pound cans, then later repacking it for retail, melting when candied, and also taking back that which candies in stores. All this is piling up cost on the consumer, or reducing the profits of the producer. The producer of extracted honey needs a storage-tank between the extractor and the marketing-package in all cases. After settling, draw from the tank into retail packages, and let it candy as quickly as it will, then sell in the candied condition.

Consumers will buy it candied and liquify for themselves, and many want it candied when spread on their bread. People buy new things because they are always wanting "something new," and if 'tis new to buy candied honey they will do it and soon learn to melt it. I sell my extracted honey in lard-pails nicely painted and stenciled—that is I used to—now our pails are lithographed. This is the cheapest package, and nice, and with the honey candied there is no drip or leak. In my home market, the prices are very close to that of granulated sugar, the honey being sold when candied. *I do not put liquid honey in stores*, and my honey sells right along, and is fast becoming a staple.

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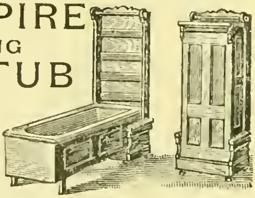

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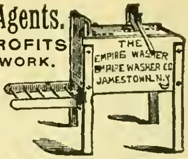

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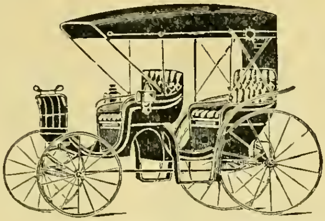

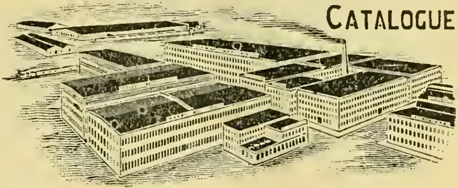

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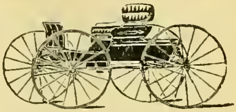

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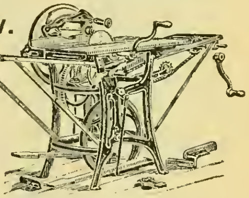

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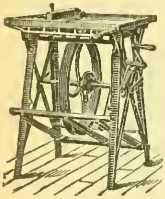

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JULY

1900
Vol. X
No. 7

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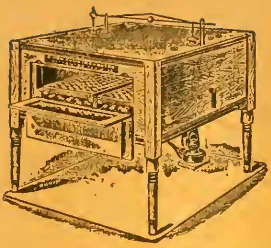

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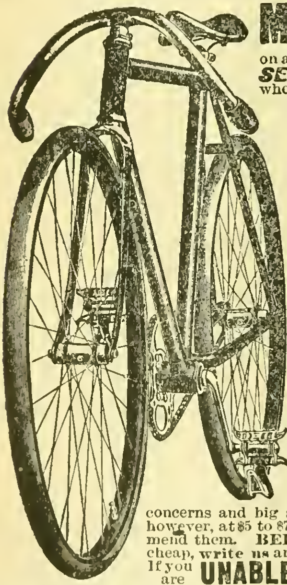

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X JULY, 1900 No. 7

OUT-APIARIES.

Their Management for the Prevention of Swarming.

BY F. GREINER.

IT DOES not lie within the scope of this article to advise or to discuss ways and means to bring our colonies up to the required standard of strength. It is supposed that at least the majority of our colonies have already attained that state of development.

The principal drawback in running out-apiaries is that the bees are apt to swarm and that the swarms are apt to go to the woods. It is therefore imperative that our management be such as to prevent all swarming.

We might run our out-yards for extracted honey, giving plenty of room to both queen and bees, always supplying empty comb etc.; there would then be no swarming. However, we wish to raise comb-honey principally as we can find a more ready sale for it. Giving plenty of room alone does not have the desired effect, and we must adopt a different management. It would be of great advantage to have only young queens in our colonies, we would then not be troubled with swarms out of their season, which appear frequently, when colonies supersede their queens. All swarms that would appear during the regular swarming period we try to head off. We seldom have any indication of swarming in this locality sooner than June 15. Nearing this date we watch a few of the best colonies, and when we find them constructing queen-cells our operation must soon begin. Hives and supers must of course have been gotten in readiness before this time.

About June 20—some years not till June 25—I go to the colonies most likely to cast swarms. First I give a little smoke at the entrance, then rap on the hive. I aim to give the bees time to fill themselves with honey. The hive is now opened; it may be set to one side first and an empty hive put it its place. This latter should contain but six L frames or their equivalent, supplied with starters only. This super is placed on top over an excluder, which, however, may be taken out after a week's time. The danger of a queen entering the super is generally past after that time, and the excluder may be needed on some other hive, and may be removed. After the bees have all filled themselves they are not apt to offer any resistance, and, without using much smoke, I now shake all the bees from their combs in front of the empty hive. I have an eye out for the queen and note her condition. After she has gone in with the majority of the bees, I place an entrance-guard over the entrance. Sometimes these shaken-off swarms leave their hive after the apiarist has left, and then the bees leave for other quarters. The entrance-guard is to prevent such an occurrence; it should be removed when making the next visit. The apiary is gone over in this fashion, always selecting the strongest swarms first to be manipulated as stated. A visit is made each week. If honey is coming in, even but moderately, the section cases on these treated colonies will fill up surprisingly, especially if we have filled the sections with comb foundation; and, unless the season continues through a very extended space of time, there will be no trouble with such as to their swarming that season.

If buckwheat is a source to be relied upon, each of these colonies should receive four frames of comb or foundation at the beginning of the buckwheat flow, which will end the manipulations of the brood-chambers of the shaken-off bees.

The question now arises: What shall we do with the brood-combs we gain from week to week by our shaking-off method? I utilize them in two different ways, viz.: For increase and for the purpose of getting extracted honey. At the beginning of the season I set apart a number of good colonies to take care of these brood-combs. They need not be the *very* best colonies, and still they must be populous enough to be able to take care of a full set of combs full of brood, for they are to receive each in their turn such a full story of brood as we gain it by shaking off colony after colony. I have said before that I always select the most prosperous colonies first for shaking off, so each successive week we have some colonies to treat in this fashion—have more brood-combs to dispose of. Our nursing stocks, which had received a set of combs full of brood one week, may receive another after a week's time and a third after another week. Even a powerful colony given this brood from week to week, will not think of swarming—they are kept too busy taking care of the young. They become very populous and also store much honey as the brood hatches, which may be extracted after all brood has hatched. Should we have full sets of combs full of white honey, and we have more colonies to shake off, I practive giving a set of these heavy combs instead of a hive full of empty frames. I *never* hive a young swarm on empty combs—not in my locality. I give either empty frames with starters or solid honey-combs. The honey in the latter will always go up into the sections as soon as the room is needed for breeding; but of course the honey must be of good color or it will spoil the looks of the nice white clover or basswood honey the bees may be storing in the sections at the time.

Some bee-keepers advocate and practice hiving young swarms—and shaken-off colonies come under the same heading—on frames of foundation. Aside from getting perfect combs I can see no advantage in this practice. Foundation in the sections pays well, however.

In case I want any increase in the out-apiary I take the colony that has two or three extra brood-chambers and move it to a new location; the uppermost two brood-chambers, neither one containing brood young enough for queen-rearing, I place back on the same stand, giving queen or queen-cell in a protector. Of course we must be sure that the queen is in the part moved. If we have placed an excluder in, a week previous, we can be very positive where the queen is. The queen must always go to the new location. Extracting combs are given to the divided colonies as well as to all stocks not working in sections.

If it should seem desirable to re-inforce any of the shaken-off colonies, a hive full of brood, after it has stood over an excluder for two weeks, answers the purpose well; I take it, bees and all, and place it over an escape on top of the colony to be re-inforced.

Naples, June 1, 1900.

CANDIED COMB-HONEY.

How it May be Profitably Utilized.

BY A. M. APPLEGATE.

THIS question has been frequently discussed through the journals, and all the best methods given for saving the honey and wax; but in all these you destroy the comb and leave the honey so inferior in quality that you hardly realize enough out of it and the wax to compensate for the nice straight combs you sometimes have to melt in order to get the honey.

The method I will attempt to describe preserves the combs as nice as new, and instead of the second-class honey you have first-class vinegar, which will bring you as much money and be as easily disposed of. Besides you are all aware that inferior honey should not be put on the market at any price.

Having provided a barrel with one head out, take the frames containing the candied honey, and where they are sealed comb them with the edge of a wire cloth just enough to expose the honey. Sometimes there will be enough honey in the combs that can be thrown out to pay for uncapping and running them through the extractor first. Then pack the frames containing the combs as snugly as you can in the barrel, noting at the time about how much honey they contain so that you will know how much water to add. Having the frames secured in the bottom of the barrel so they cannot float, pour in water enough to cover them. You can hurry fermentation by adding a little yeast; or should you already have some fermenting, add a little of it to the one just prepared.

Two pounds of honey to one gallon of water makes very good vinegar; but you should keep it as much stronger as possible so that the water used to rinse the combs after they are through fermenting and thoroughly soured, may be added, making in all about one gallon of water to every two pounds of honey. The honey and even the pollen that contains some honey, or has absorbed some of the sweetened water, will be fermented out of the cells. What is not removed in this way will shrink from the cell walls, when dry, and will jar out or be removed by the bees. To remove the vinegar from the combs turn the frames, with the top down, supporting them between the thumbs and fingers, let them drop onto some strips across the top of the barrel, gently at first, until the comb is relieved of some of the vinegar; then immerse them a few times in water, jar the water out in the same way and use it to dilute the vinegar. Any additional rinsing will do no harm, neither is it necessary to have the combs entirely free from the vinegar.

I treated black-brood combs in the same way last summer, and thought what little vinegar adhered to the combs was an advantage.

Fully one-third of the bees through this section died last summer. The remainder seem in good condition for this time of year.

Reynoldsville, Pa., Mar. 12, 1900.

CLEARING SUPERS OF BEES.

BY S. M. KEELER.

IN THE BEE-KEEPER for September, 1899, Mr. M. L. Main tells us how to assist bee-escapes in taking off comb-honey by giving honey in the escapes to set the bees to work. I think this might cause a lot of bees to rush out and hunt all over the yard to find where the supply was coming from, and might not be pleasant to the apiarist while opening hives.

I think my plan is one ahead of Mr. Main's with no bother with escapes. My escapes in the honey-room windows are in the right place. I use as little smoke in the hive as possible to accomplish my object. In the first place I cut or break the supers loose from the brood-frames, give the bees a little time to clean up any dripping honey; then, when ready to operate, loosen the enameled cloth at the back end and raise it a little and flap it up and down to drive the bees down with puffs of cold air (some one gave us this before now). Then take off the enameled cloth, and give a few puffs of smoke if needed. Set the super off the hive, cover the frames with cloth and quilt, put on a flat hive cover and set super on end, on the front of hive. Now, with smoker and brush hustle them out and down at the hive entrance, where they will run in as fast as they can.

The honey is now ready to go to the honey-room to be stacked up crosswise, or with sticks between so the bees can pass out without going up through the whole pile. It takes but a few minutes to take off super and put it in the honey-room. What few bees are carried in with the honey will be out of the cases and out of the honey-room before night.

Brother Doolittle's point of view is well taken in prompting us to more careful reading and thinking: and when his "eagle eyes" come down on our mistakes we must receive it with thanks and invite him to come again. And in so reading an article we often gather some new and good idea that the author apparently never thought of.

Chenango Bridge, N. Y.

[It is an excellent plan to have escape cones in the honey-room, as suggested by Mr. Keeler; and we have used practically the same method as outlined above quite extensively. We have produced no comb-honey, however, for several years, and have therefore had no opportunity of testing Mr. Main's plan; but, theoretically, at least, it is very nice—a great improvement on the old smoke-and-brush method. In using smoke, as we have learned by experience, there is danger of greatly impairing the flavor of the honey. We have seen honey, crated soon after having been thus smoked, which imparted a very perceptible odor of smoke upon being opened three months later. The escape, since its introduction, has given better satisfaction: and we had thought, possibly, by Mr. Main's method of using it, it might be entirely satisfactory. In California the plan was to bore a one-and-a-half inch hole in the side of an empty super, place this upon the flat lid of an adjacent hive, or the one from which it was removed, and upon it the super to be cleared. The smoker-nozzle was then inserted in the hole, and as the bees, in a cloud of smoke, fled upwards for their lives, they were brushed to the winds. When it is possible to do so, we greatly prefer to entirely dispense with smoke in clearing supers.]—EDITOR.

Dollars and Queens

Exchanged for Ideas.

We have several silver dollars of recent issues, and also a number of untested Italian queens. These we hereby offer to our readers in exchange for articles for publication. The queens are as well worth a dollar as are the silver coins, so the contributor may have his choice.

From this date and until further notice, we shall send each month, at the option of the contributor, $1.00 in cash, or an Italian queen, to each of the two contributors whose articles we deem most interesting or instructive.

For the two second-best articles we will send fifty cents each.

All matter submitted in contest will become the property of THE AMERICAN BEE-KEEPER.

Short articles are more desirable than long ones.

The names of the winners will be published in the same number of THE BEE-KEEPER in which the letters appear.

Some one will get the cash and queens as surely as the paper is issued. You might as well have some of them while they are going. Write on some live bee-keeping topic; the expense will be but two cents, and it is not at all improbable that you shall be one of the four to whom the premiums will be mailed each month.

As the editor has this arrangement in charge, it would be as well that all matter pertaining thereto be addressed personally to H. E. HILL, Fort Pierce, Florida.

MIGRATORY BEE-KEEPING IN THE SOUTH.

JUDGING from the great number of applications we receive from bee-keepers throughout the country who desire to engage with us for a season, in order that they may acquaint themselves with the advantages and disadvantages of Florida as a bee-keeping country, and the still greater number of young men who write requesting the privilege of studying practical apiculture with us, in the South, there is a widespread interest in Florida, among bee-keepers.

While there is much pleasure and satisfaction in the thought of being located in a land of perpetual summer, and knowing that our industrious little workers have not to be frozen up and snowed under during a great part of the year, we have, at times, obstacles and conditions hardly less unpleasant, and even more difficult to control. There is, to be sure, much pleasure and fascination in the work of visiting one's apiaries along the banks of the beautiful Indian River, with a commodious boat having an extractor and tank aboard, going through the work of extracting, attending to such other matters as may require it, and setting sail for other yards conveniently located along the coast.

This is one of the pleasures of the migratory bee-keeper in Florida, and is the one usually contemplated in the dreams of the inexperienced youth who is inclined to seek his fortune through migratory bee-keeping in the far South.

LANDING OF THE PILGRIM SONS, AT LOW TIDE.

It is commendable in any young man that he should formulate future business plans and strive energetically to execute them to the letter. It is only to such that success ever comes; but, even with the most diligent application to a business so susceptible to the influence of ever-varying conditions, disappointment is not an infrequent result.

The dragon-flies and ants are in themselves more to be dreaded as destroyers of bees, than are the Northern winters. Frequent storms of a more or less violent nature, and continued high winds not only retard the progress of the bees but inconvenience, if not imperil, the navigation necessary to their attendance. Myriads of insects—mosquitos, sandflies etc., are occasionally encountered, to the extreme discomfort of the migratory bee-keeper. It is generally conceded, by those whose livelihood is gained through the production of honey, that their business entails much hard work; but the migratory man who had but to attend a permanent apiary for a year would regard it as a blissful season of rest, by way of comparison with his usual labor.

In the picture is shown one of these young apprentices whose ambition to "go South and learn the business" has been gratified, and another young man from the interior of the state, who seeks fame and fortune as an East Coast bee-keeper, and has spent several seasons in our apiary. Arriving at the site selected for an apiary with a load of bees, at low tide, it was necessary, when the boat had been brought as near to the shore as the shoal water would permit, for all hands to jump overboard, carry the hives ashore, place them upon a wheelbarrow and wheel them to their stands. Before the cargo was all discharged, although no complaint was made by the boys, there was to be observed upon their faces that expression which appears to yearn for "home and mother" —a visible longing for a safe restoration to the family firesides at Kissimmee and Buffalo. To the reader, a casual glance at the picture might suggest the landing of the Pilgrim Fathers, with the *Mayflower* in the background; the boat, however, is but the *Drone*, with a burden of bees, of which she is being relieved by the two tired students of migratory bee-keeping.

THE PRODUCTION OF COMB HONEY.

BY JOHN NEWTON.

My apiary is run for comb and extracted honey. I usually select the strongest and best colonies for this purpose. As regards the word "best," if the record of the hive should say that they build braces or burr combs, I do not want that colony for comb. As I believe breeding has a great deal to do with that—and supers with braces across them are not nice to handle—I would say, pinch such a queen. When spring work has been done, clipping queens, giving room to the crowded queens by scraping honey at the top of the frames, so that those cells will be used for brood by the queen; leveling up hives, etc.; and before the honey season opens, I see that my supers are scraped and filled with sections—4¼x4¼x1⅝—which are filled full of foundation of about twelve square feet to the pound, made from the finest wax that can be procured.

Separators are used between sections and a perforated follower or divider at the sides, which gives an extra bee-space, which is of great importance in keeping up the necessary heat day and night, at the outside of the outside sections.

The divider is just made as one of the separators, with a cleat to provide the extra bee-space, and filled with 5-16 inch holes.

I use a two-part super, thus giving the bees room to store their surplus, and at the same time not giving them so much room that they will hesitate about entering them, as they will at times if a super were given them to cover the whole hive.

Now, everything ready; when the honey season opens and we have selected those hives which we desire to run for comb-honey, which should be crowded with bees from side to side; and, on drawing back the quilt, we see that they are filled with new honey, we place on one of these half supers, close down, place on the rim of hive, to keep snug and warm.

When swarming commences, hive swarms on old stand in hives in which have been placed five starters about two inches deep, and the rest of the hive filled with dummies. After swarm has returned place parent hive alongside of swarm for five days. After removing to new stand the flying bees, which will go into swarm, will thus strengthen it up and give us the best colonies for comb-honey production.

If the swarm is a very large one, or should two go together, the supers are at once taken from the parent hive and placed on swarm with perforated metal board between so the queen may be confined to her rightful domain. An average swarm, however, I leave a day or two before putting on supers and this catches the pollen below, thus doing away with it in the sections. If I have placed on perforated metal board, I remove it as soon as the queen has become established below, as I find the bees do not work so readily in sections if they have to pass through the zinc.

During the honey flow hives need close attention to see if more room is needed, or supers need changing from end to center, so as to get end sections as well filled as the center ones. I work on the tiering-up system, always putting the empty super next to the hive. When supers are finished they are taken from the hive by means of the smoker or bee-escape and carried to the store room. The sections are then scraped and graded, packed in no-drip cases, holding one dozen sections; and are then ready for the market.

Thamesford, Ont.

◆

Jogging Jim: "'Ello, Slumpy! Wot's de matter wid yer face an' han's? Got de hives?" Slumpy: "No. I got de bees."—*Judge.*

Quotations from Our Exchanges.

From Gleanings in Bee Culture:

To get the bees to finish the outside sections in the super, place a piece of tin over the middle brood frames so the bees will pass to the super at the sides and rear end.—W. B. Ranson.

Central California has a flourishing association for the marketing of their product. They have started in right, and in line with Arizona and Colorado—no salaried manager and other useless expenses. The sales are made at a minimum expense to the producer.—J. H. Martin.

With regard to the matter of hurrying up the process of granulating honey, the surest way and the cheapest that I know of is to leave the combs smeared with honey at the last extracting. Tipping the honey several times a day, just a little, will hasten granulation.—S. T. Pettit.

Colonies suffering from foul-brood are usually weak, and this induces bees from other hives to rob them of their honey, and thus carry off the germs of the disease along with their ill-gotten gains.—T. W. Cowan.

I wish it might be understood that large yields of honey come not from hives, but can be secured only through an energy and push sufficient to bring large numbers of bees in a hive, and secure said large number of bees in time for the honey harvest. In this lies the great secret of successful honey production.—G. M. Doolittle.

From the Bee-keepers' Review.

To have strong colonies at the opening of the honey-flow, and to keep them strong during the flow, is one of the most important things connected with comb-honey production. A weak colony may give us some extracted honey, but we must not expect any fancy comb honey from a weak colony. —J. F. Otto.

While extracted honey may be produced in any movable frame hive, it is best to use a hive adapted to the work. In this hustling age, one who would not "get left" in the race, even in honey raising, must cut all the corners he can. —H. L. Burrell.

No matter how plentiful the source of nectar supply, unless the apiarist has his colonies strong at the beginning of the honey flow he will meet with only disappointment and failure ; hence the whole system of spring management should be directed to the production of strong colonies early in the season. To secure the strongest colonies two things are necessary; namely, plenty of heat and plenty of food.—M. P. Cady.

A thing should not be accepted because it is new, nor clung to because it is old; this would bar all progress, and deprive us of all our advantages as thinking beings.—C. A. Hatch.

About ten days before the expected flow I place a super full of boxes, with starters, and two or three bait sections on each hive. Before the flow comes the bees will become accustomed to their new addition and will enter it with a rush when honey comes in freely. When our first super is about full, and all the centre sections sealed, we change the full ones to the outside, and the partly filled ones to the centre, lift this super and place an empty one under.—G. W. McGuire.

It is the strong colonies that call for lots of sections, while the weak ones call for only a few; and one can hardly expect a large crop of honey, even in good seasons, when only 30 or 40 per cent. of his colonies are strong enough to enter the sections at the beginning of the season.—Ira Barber.

From American Bee Journal.

The management of supers during the honey flow is a matter requiring good judgment and skill. It will not do to put on a lot of sections and then let the colony do the rest—that is, if you will get the best results. It requires a close watch and a pretty nice estimate of what a colony will do, to know when and how to adjust the supers.—R. C. Aikin.

There is comfort in the knowledge so often expressed—experience is the best teacher. I believe a man will best succeed who loves bee-keeping. Other industries can be successfully carried on when followed only for the profit, but I think it necessary to love bee-keeping in order to succeed.—Jacob Huffman.

When the reasonable objections have been obviated, and have been substituted by beneficial and substantial improvements, then is the house-apiary destined to come rapidly into favor—not only because of the great convenience it affords, but chiefly on account of the beneficial results obtained by the saving of money, time and labor.—B. J. Chrysostom.

The bee-keeper whose colonies are robbed by other bees can lay the blame on himself, and himself only. A colony of bees in healthy condition and properly managed should fear nothing from robber bees. except by some accident beyond the control of the apiarist.—C. P. Dadant.

I find that it is a good thing to have hives put up in trees close by the apiary, as in this way I catch swarms that come off when I am away.—John C. Silver.

Large, rugged, and prolific queens will produce the best drones, which I prize very highly. Always, in September, I remove a few of the queens from colonies which produce the largest and best drones, so as to preserve their drones for fall and spring service when there are no other drones.—Geo. W. Riker.

Apiculture seems especially adapted to those whose life work is a dull, humdrum routine, that seems to rob life of all zest.

If more of our ladies, instead of seeking the office chair, or the position of the school desk—all of which shut out fresh air and sunshine, until pallor and languor point sadly to departing health and vigor—would seek apiculture as an avocation, we might have, instead of pale, wan cheeks, roses and blooming health.—Miss Ada L. Pickard.

From The Progressive Bee-keeper.

We can sell extracted honey candied if we will. Do not tell me the people will not have it so—they will have it so. if we just put it up that way and keep it in the markets. The main trouble is introducing it where the idea is new; but that is easy, for it is so much easier for the grocer that he becomes our voluntary agent in showing and explaining, and just get a customer to try a pail or two, and the thing is done. * * * If my trade increases year by year as it has in the past five years, it will soon take carloads to supply it annually.—R. C. Aikin.

Brother Aikin says we can sell candied if we will. Amen to that! In fact, the call for extracted honey about here has changed from liquid to that of candied, during the last ten years. * * * Yes, there is no trouble in selling extracted honey in the candied form, "if we will." —G. M. Doolittle.

There are four points that I have come to consider important in working my apiaries: First, pushing the bees in spring, by keeping plenty of feed; second, clipping every queen; third, weeding out the old queens and supplying young ones; fourth, keeping an assistant in the apiary every day that I am not there myself.—Mrs. A. J. Barber.

I am a large hive man. I believe in strong colonies at all times of the year. Large colonies not only gather large quantities of honey, but require much less work and attention. Now, right in line with strong colonies comes the importance of good queens to fill the large hives, or "barns," as some call them. I want queens reared by the best methods from industrious stock, queens that have been well fed in their larval state, queens that are large and able. I want no queen that cannot, in this locality (Texas), have twelve frames of brood by the commencement of the honey flow, April 25th, and the more brood and the stronger the colony the better I like her.—H. H. Hyde.

A comb solid sealed contains more honey than the same comb unsealed, so that if the fully sealed requires more time to uncap we get more honey for our time spent. Nor is this all yet, the wax obtained from the cappings is no mean profit. One hundred pounds of honey uncapped will give near one pound of wax, so if I am correct, that the wax costs us nothing in the first place, we clear about one dollar's worth of wax from each 500 pounds of honey uncapped. Give me the wax of the cappings as my wages and I will uncap by the year and make more money than the owner of the honey. Give me fully sealed honey to extract and I will extract it. uncap and all, for the wax, and make good wages.—R. C. Aikin.

Even with a double-walled tank for liquefying honey, care is needed to prevent the honey from being colored. Some cans which I liquefied by setting them on the bottom of the tank, poured out light honey at first and dark honey from the bottom, showing that the heat from the boiling water between the two bottoms of the tank was transmitted directly to the cans, without being modified sufficiently by the water around the cans in the tank. Hence, it is necessary to place strips of wood under the cans. In bottling honey, it should be of a certain temperature—no more and no less —to avoid incorporating bubbles of air. If too thick. the down-flowing stream of honey will waver from one side to the other, lapping over itself when it reaches the honey in the vessel, thus enclosing streaks of air. If too thin, it will pierce right into the honey below, dragging down air with it in the form of small bubbles. It should be of just the right thickness to spread out in the form of a cone when it strikes the honey below, neither depressing its surface nor piling up on it, but uniting with it at once wherever it touches.—H. Rauchfuss.

NEW YORK INSPECTORS APPOINTED.

It is gratifying to note the steady onward march of progressive apiculture in the Empire State. Many other states would do well to emulate the example which it affords. It is not difficult to obtain legislative action on such matters as are required to protect and further bee-keeping interests, when undertaken unitedly. We take pleasure in laying before our readers the following announcement from the State Department of Agriculture, and congratulate the bee-keepers of the state upon this happy result of unity:

State of New York.
Department of Agriculture.
Charles A. Wieting, Commissioner.
ALBANY, N.Y., June 1, 1900.

AMERICAN BEE-KEEPER, Falconer, N.Y.,

Gentlemen: The Commissioner of Agriculture of the State of New York has appointed the following Inspectors, under the provisions of the Agricultural Law, relative to the prevention of diseases among bees (Chapter 223, Laws of 1899), and has assigned the counties of the State as per list enclosed.

Very respectfully yours,
G. L. FLANDERS,
Assistant Commissioner.

Wheeler D. Wright, Altamont, N.Y. Counties: Albany, Clinton, Columbia, Dutchess, Essex, Greene, New York, Putnam, Rensselaer, Saratoga, Schenectady, Warren, Washington, Westchester.

N. D. West, Middleburg, N.Y. Counties: Broome, Chenango, Delaware, Kings, Nassau, Orange, Otsego, Queens, Richmond, Rockland, Schoharie, Suffolk, Sullivan, Ulster.

Charles Stewart, Sammonsville, N.Y. Counties: Allegany, Chemung, Cortland, Fulton, Hamilton, Herkimer, Madison, Montgomery, Oneida, Schuyler, Steuben, Tioga and Tompkins.

Mortimer Stevens, Pennellville, N. Y. Counties: Cattaraugus, Cayuga, Chautauqua, Erie, Franklin, Genesee, Jefferson, Lewis, Livingston, Monroe, Niagara, Onondaga, Ontario, Orleans, Oswego, Seneca, St. Lawrence, Wayne, Wyoming, Yates.

LARGE FIGURES OVERSTATED.

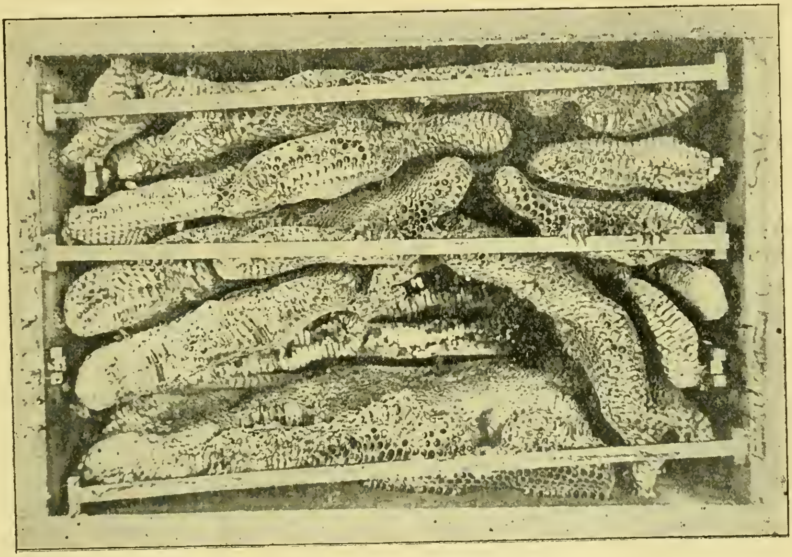
On pages 105 and 106, June number of THE BEE-KEEPER, there appeared some figures regarding the amount of honey harvested in a single season by Col. G. Garcia Viete, of Cuba, which will probably surprise no one more than the Colonel himself. How the figures got there may always remain a mystery. It is one of those inexplicable things which occur in a printing office—too frequently. The proofreader thinks they are according to copy; which opinion is shared by the senior member of the publishing firm. The boss printer and his typos unite in disclaiming any responsibility for the error. The pressman is anxious to go before a notary and affirm that he assumed no liberties with the formes. The devil has been granted a leave of absence to brush up a little on his Chautauqua Literary Course, prior to the opening of the season; and, of course, "don't know a thing about it." During the investigation even the cat—from behind the office towel, which stood in a corner—in the most pathetic feline accents protested her innocence; and the editor is offering $25.00 for the production of copy which will fix the responsibility upon himself; but it cannot be found.

The figures should read: Page 105, 4th line, **180** tons; and page 106, 5th line, **360,000** pounds.

We regret the occurrence, and humbly tender our apology to Col. Viete and our readers.

NATURAL COMBS.

Since the introduction of comb foundation we have become so familiar with straight, parallel combs in the hive that it is interesting to note the peculiar construction of those which result when the bees are permitted to follow their own inclination. The accompanying engraving affords an interesting study of this natural characteristic of the bee. It also serves to illustrate the fact that two or three old frames, without starters, placed in a hive, do not suffice to produce interchangeable combs.



NATURAL COMB-BUILDING.

We recently bought a number of colonies from a man who had used movable-comb hives for many years, and the view is taken from underneath the brood-chamber of one of these. The gentleman complained that moths and general bad luck were so reducing his stock that bee-keeping was no longer profitable. A third glance at the picture may serve, again, to explain why it is that some bee-keepers encounter such general "bad luck."

It is not improbable that many of our younger readers have never seen such a specimen of natural comb-building as that herewith presented, which but a few years ago was decidedly more ordinary than the hives filled with nice, parallel combs, which we now see and use daily, without appreciating the great advantages we enjoy through the energy of Mehring, Jacob, Weiss and others, who have aided in giving to the bee-keeping world a perfect comb-guide, and one that obliges the bees to construct combs of worker cells throughout.

* * *

"Old Grimes," in *American Bee Journal*, recommends as a queen excluder between the lower and extracting story of a hive, a solid board without perforation of any kind. A space of three-eighths of an inch is left on all sides, next to the walls, for the passage of the bees. A frame is used to support and strengthen it.

R. C. Aikin is persuaded that it is almost impossible to secure comb-honey in proper shape for market without the use of separators.—*Gleanings*.

THE JUNE BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

THE June number of THE BEE-KEEPER starts out with a new man at the head—Rev. C. M. Herring—at least he seems new to me, and doubtless will to most of the readers of THE BEE-KEEPER; although he says he is a twenty-seven-year-old bee-keeper. He may have written for our bee-literature before, but not frequent enough so that his name is as familiar as those of many of the writers on apiculture of the present time.

"THE MAN."

From his putting the Man first in importance when speaking of the factors which go toward making a success in bee-keeping, it shows that his 27 years of experience in our pursuit has not been for nought. The importance of the Man in relation to the success attained, is one of the good things which, more frequently than otherwise, has no place in our bee-literature. We have much to say about the "best bee," the "best hive," the "best location," the "best plan for wintering bees," the "best way to market honey" etc., but more often than otherwise fail to realize that back and behind it all stands the Man or the Woman; and the success of the undertaking lies in the Person more nearly than anywhere else. The right kind of a man or woman will make a success anywhere, and in any calling, whether it be bee-keeping or preaching the gospel; and if this is a fact, which I think all will admit, how necessary it is that we study hard to become the right kind of men and women in this world. With all men and women successful, this world would become a successful world, and one in which all would find comfort and happiness. And, lest some might think of success as being a successful selfishness, I wish to say that the *highest* success can only come by lifting others up to the high table-land near or at the mountain top, best told in the words, "Love thy neighbor as thyself," and "Do unto others as you would have others do unto you." The present unsuccessfulness in the world comes through a lack in carrying out these principles, not only with the people but with the pastor as well.

SURVIVAL OF THE FITTEST.

But I cannot help thinking that among the many excellencies found in Bro. Herring's article a little error has crept in. He says, under the head of The Bee, "As is true among all animals, vegetables and insects, so also of the bees; old varieties will finally run out." And, in speaking of the mistakes of the novice in buying bees in box hives, he says, "The bees are cheap and worthless." In this he runs right counter to the doctrine of the survival of the fittest, which doctrine is often put forth to show why our bees are not as prosperous and hardy as they used to be in our fathers' day, when none but "worthless" (?) blacks were kept. If Mr. Herring, or the reader, will take pains to turn to page 103 they will there see near the top of the first column, where our tried and true Greiner has "tried and tried again" to supplant the run-out variety with a "well-tried race"—as Mr. Herring calls the Italians—only to find, after all of his endeavors, that his apiary still has more of the "character" of the "run-out" variety than of the "well-tried" race. And in Mr. Greiner's next paragraph he says: "Many bee-keepers are well satisfied that the old run-out, worthless variety are superior to the tried and true as comb-honey producers," or words to that effect. But I shall notice this part a little farther on.

HIVES.

Speaking of hives, Mr. Herring thinks that well-seasoned pine, 1½ inches thick, gives better results than chaff hives. This may be so for his part of the State of Maine. But this part of the matter was not what led me to touch this Hive for Wintering question. It was to tell the reader of something good along the out-door wintering line that Bro. Herring's article brought to mind, which I think I have not spoken of before. When at Providence, R. I., a few winters ago, one of the bee-keepers there (and they have some as brainy and bright bee-keepers in and around Providence as are found anywhere in the world) asked me if I would try cork dust in packing bees for winter, using it in place of chaff for packing. He said it should cost me nothing except the freight, as there were hundreds of bushels of it thrown away each year, it coming to that city as a packing for foreign grapes. I assented to the trial part and here wish to say that I have never had bees winter so perfectly out doors as have those furnished with this cork dust for the packing between the walls of the hive, where chaff is usually used. You who live near cities where foreign grapes arrive, speak for this useless cork dust and see how it can be turned from its uselessness in the cities to a utility in packing bees in the country.

ITALIANS INFERIOR AS COMB-HONEY PRODUCERS.

I now wish to notice Bro. Greiner's words, found in the middle of the first column on page 103, differently from what I noticed them above. He says: "Very many of us bee-keepers here are pretty well satisfied that the Italian is inferior to the native as a comb-honey producer." I wish he would tell us wherein the Italians are inferior. Is it in that part wherein the Italians start out and fill the sections with comb when only a slight flow of honey is on, instead of their using the tactics of the natives of building their combs only a little way, lengthening out the cells and sealing them, then starting up a little further, with the next flow of nectar, lengthening out the cells and sealing again, and so on, filling the sections a little at time, till the experienced eye can tell at a glance that such sections were filled by native bees in a season of light flows of nectar, by their "wash-boardy" appearance? Is it because he has found the claim good, which was made years ago, that the Italians were slow in entering the sections? If this is the case, did he study the traits of the Italians and "manipulate them accordingly," as Bro. Pridgen told us we must do with any race, in order to meet success? Was it because they capped their combs so closely to the honey that the same was given a watery appearance? If so, did he try purchasing a variety of Italian bees that capped their combs white? Failing in these points would show that he was not as alive to the good points in the Italian bee as to those in the natives. We should like to hear something further in this matter from Mr. Greiner before he condemns Mr. Herring's pet race in such a wholesale manner.

"DOWNY MISSES."

On page 108 I see friend Pridgen has got after me, and, to answer him Yankee fashion, I am going for him to see if we bee-keepers cannot draw a little larger ray of light than has yet been shed on the Introduction part used with those "downy misses" which, he tells us, he used "with the assurance that as few will be rejected as there are cells that fail to hatch and are torn down." If Bro. Pridgen can give us a *certain*, *easy* plan whereby these downy misses can be introduced to a colony from which a laying queen has just been taken, just as certainly and as easily as a ripe cell can be introduced, he will confer on the readers of THE AMERICAN BEE-KEEPER more good than Doolittle can by these emphasizing articles in a whole year. Thus, you see, Bro. Pridgen, if you desire to do good to the bee-keeping fraternity, here's your chance, making the minutia and details of the plan so plain that the novice, or "the wayfaring man, though a fool, need not err therein."

Allow me to say, plainly, that I have not introduced these downy misses to any extent, because I could not make a success of it—no such a success as with ripe cells. With the cells not one in a hundred fail to hatch, and not two in a a hundred fail to be accepted when hatched, where queen-cell protectors are used; but with the downy misses I cannot do better than lose 75 out of every 100 tried; and I know of scores of bee-keepers who make as dismal a failure as I do. I have tried placing them carefully on the combs, as Dr. Miller tells us to do, only to have them seized as intruders and thrown out of the hive; have tried dropping them in honey, rolling them about in it, then dipping them into the hive—honey and all—only to lose them, etc., and the only way I have had any success was in caging them with candy enough in a hole in the cage so it took the bees three days to eat it out, when I generally got them accepted; but by this time they were old virgin queens. Now, Bro. Pridgen, here is a chance of your life; tell us just how it is done.

Borodino, N.Y., June 9, 1900.

THE AMERICAN BEE-KEEPER

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☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Australia has also a "National Bee-keepers' Association."

The Bee-keepers' Review is to have a new home, more conveniently located, at Flint, Mich.

The National Bee-keepers' Association will convene in Chicago, August 28, 29 and 30, 1900.

Editor E. R. Root, of *Gleanings*, has in project a trip through Florida and Cuba during the coming fall or winter. We shall be pleased to see him in the South.

It is asserted by many who have had experience that the raising of Belgian hares may be profitably combined with bee-keeping. If any of our readers have had experience in the matter we should be pleased to hear from them on the subject.

The Bee-keepers' Review has discarded its cover of cream and claret for one of old gold and black, very similar in appearance to that of The Bee-keeper. The former tasty appearance of our esteemed contemporary has not suffered in the least by the change.

New South Wales, Australia, is reported to have recently received a consignment of bumblebees from New Zealand. The latter country; we believe, got its start in the bumblebee business from America, a shipment of them having been made from this country for service as a pollenating agent in agricultural and fruit-growing districts, as none were originally found there.

Now that the National Bee-keepers' Association is actively engaged in the work of suppressing adulteration of honey, let every producer contribute his dollar, and thereby make it easy to wipe the adulteration business from the Mississippi River off into the seas east and west, from coast to coast. When this is done the development of our markets for pure honey will be undertaken. Let's be done with it.

The American Apiculturist once reported Captain Hetherington as saying, "Usually the man with the least experience is the most positive." There is a world of truth in it. Young experimenters who have met with success in a single trial of some idea new to themselves, should not hastily accept such success as evidence that they were born to enlighten a world of ignorant bee-keepers and revolutionize their crude methods. A few years of practice may disclose the fact that the ground has been gone over quite thoroughly by others, years before; and perchance, that some equally brilliant mind has well explored the same field.

Mr. Doolittle, in *American Bee Journal*, gives queen shippers a valuable pointer on the selection of attendant bees of the right age. His experience and study of the matter has proven that, in opening a hive, the bees which immediately thrust their heads into the cells of unsealed honey and forthwith begin to fill themselves are of the right age to accompany the queen in the mails. These, he says, are neither too old nor too young. Concluding an editorial comment on the subject the *Bee-keepers' Review* well says: "Fortunately this is an easy way to determine which are the bees of the best age; and, fortunately too, such bees are in the correct position to be picked up very easily."

Some correspondence with Eastern honey dealers and commission men elicits the information that there is almost no demand for extracted honey at this time. Buyers, it appears, are inclined to hold off, in anticipation of lower prices later on. The present prices are less discouraging to the producer than quotations have been for several years previous to 1899. It will not be difficult to maintain living prices for this season's crop if bee-keeper's will not rush into the cities too early with their product. It is not good business policy to ship when the demand is so inactive. The supply is limited and the market is not stocked; neither does it appear that the buyers are heavily loaded. The best houses in New York City are now advising shippers to withhold consignments for a while, in their efforts to strengthen the market. Producers should heed the suggestion. This is as it appears to us at this time

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Speaking of the Ferris wax extractor and its inventor the *Bee-keepers' Review* says: "Whether the discussion of a year ago in regard to the need of pressure in getting all the wax out of 'slum-gum' stirred up Mr. Ferris to further invention in that direction, I do not know. Be that as it may, he has added a screw and follower that can be applied while the 'slum-gum' is still under steam heat. It would seem as though this left nothing further to be desired in the line of wax extractors."

There is no doubt that pressure under steam is the principle that will ultimately solve the matter. Mr. Ferris is working on the right line, and now has a good machine; but those who are inclined to apply their inventive genius to this problem need not be disheartened by the *Review*'s surmise, that there is nothing left to be desired. While we appreciate the advance made by Mr. Ferris and others of late, there is yet much to be desired in this line. We believe it would be well to agitate the matter yet awhile—until we have an extractor equal in every way to the requirements of such a machine.

ARTIFICIAL QUEEN-CELL CUPS.

We have received from Mr. W. H. Pridgen, the North Carolina queen-breeder, a sample of his machine-dipped cell-cups. One style is adapted to the Doolittle method of transfering the larvæ, as given in "Scientific Queen Rearing," while a second style is constructed for the reception of the cocoons, as used by Mr. Atchley of Texas.

Mr. Pridgen has invented a "machine" by means of which he turns out this new commodity at the rate of 2,000 an hour. They are very neatly and uniformly made.

We have for some time been working to perfect a device for the same purpose, and, at the present stage of development, believe we shall be able to afford Mr. Pridgen substantial competition in the way of supplying the future trade with artificial cups.

THE HAKES ADULTERATION CASE.

Since the report of the Hakes adulteration case, given in last number, was put in type, it transpires that analysis has shown adulteration in other honey passing through Mr. Hakes' hands, than that sold him by the reputable bee-keeper whose name several of our exchanges have freely published as connected with the crime. Taken all in all, the case is badly muddled. The department commissioner, it is said, after inspecting the premises of the suspected gentleman—whose name we cannot conscientiously publish without further proof of his guilt—and helping himself to samples of honey, and having them analyzed, completely exonerated him. The later information asserts that some adulterated samples from Mr. Hakes, found in the open market, came originally from another extensive bee-keeper in Ohio, who bears an untarnished reputation for integrity in all his dealings. From THE BEE-KEEPER'S point of view, the publication in full of the report, as has been done, is, to say the least, quite premature.

IT IS OFTEN SO; WHY IS IT?

Why is it that things in general are so often persistently obstinate, in the hands of the ambitious amateur?

Why is it that experienced and successful apiarists minutely detail their methods of performing a piece of work, and the studious novice, with the open book before his anxious eyes, faithfully executes the specific instructions, only to meet failure and disappointment in results?

Why will the beginner impatiently count the weeks and months of a long winter in his anxiety to put into practice some book idea which has fired his enthusiasm in "chill November," and after the cherished privilege has been accorded, wield the pen in denunciation of the idea whose brilliancy lately appeared simply transplendent, but is now, obviously, "nonsense"?

Why should it be that the trembling, anxious tyro exercises the most exact precision in the performance of a task, and forthwith every bee in the hive concurs in a resolution to overthrow the whole plan; while the old bee-keeper a couple of miles up the road, without a thought of failure, whistling Yankee Doodle or Old Hundred, instinctively undertakes the same job, with complete success? And the chances are sixteen to one that the latter's mind is meantime laboring with the financial situation of his country, or is sojourning in South Africa.

Why is it so? It often is.

CONVENTION OF THE NATIONAL BEE-KEEPERS' ASSOCIATION.

Chicago, Ill., August 28. 29 and 30—Papers from Noted Bee-keepers, Question Box, etc.

Office of Secretary, Sta. B. Toledo, O.
June 19, 1900.

Editor AMERICAN BEE-KEEPER: Please allow me to remind the readers of THE BEE-KEEPER that the next Convention of the National Bee-keepers' Association will be held at Chicago, Ill. on the 28th, 29th and 30th of August next, commencing on Tuesday evening, the 28th, at 7:30.

The sessions will be held in Wellington Hall, No. 70 North Clark Street, about a block and a half from the office of the *American Bee Journal*, and about five blocks directly north of the Court House. The hotel at which lodging etc. may be secured is the Revere House, on the southeast corner of Clark and Michigan Streets, about half a block from the hall. Lodging will be 50 cents per night, but several will have to occupy the same room, and Mr. York has been assured by the proprietor of the hotel that good beds will be furnished.

Each one should secure a lodging place as soon as possible after reaching Chicago. There is usually no trouble in securing enough to eat at reasonable rates.

It is expected to have one paper at each session from such noted bee-keepers as Mr. Thomas W. Cowan, of London, Eng.; Mrs. Acklin, of Minn.; Dr. Howard, of Texas; R. C. Aikin, of Col.; Herman F. Moore, of Ill.; and S. A. Niver of N.Y. The remainder of the time will be used in the asking. answering and discussing of questions. The Question Box will be in charge of such veterans as C. P. Dadant, Dr. Miller and Geo. W. York of Ill.: Hon. R. L. Taylor, of Mich.; D. W. Heise, of Ont., Canada: Rev. E. G. Abbott, of Mo.; and O. O. Poppleton, of Florida.

I have not yet been able to learn what rates of fare will be charged by the railroads, but presume they will be about the same as usual for the G. A. R. Encampment, being one and one-third fare for the round trip from some localities, one fare for round trip from other localities, and one cent per mile each way in the Central Passenger Association territory. The rate from any locality may be ascertained at any R. R. station as soon as the agents receive their instructions. A. B. MASON, Sec'y.

* * *

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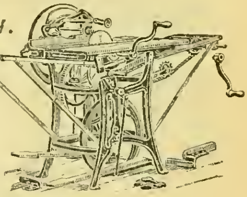

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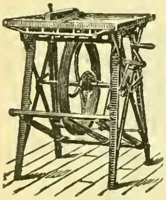

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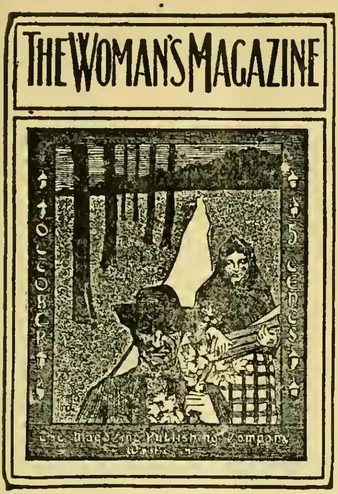

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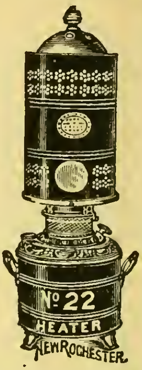

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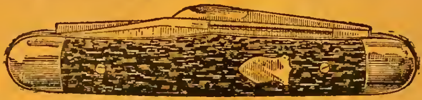

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THE AMERICAN BEE KEEPER.

A MONTHLY JOURNAL UBLISHED FOR HE BENEFIT EVERYONE NTERESTED BEES AND HONEY

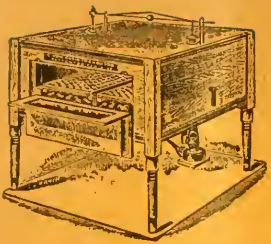
MURRAY-HEISS. CLEVELAND, O.

AUGUST

1900

Vol. X No. 8

Entered at the Postoffice, Falconer, N.Y., as second-class matter.



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Another Big Offer!

As I have explained in previous advertisements, the publisher of a good journal can afford to make liberal offers for the sake of getting his journal into new hands. I have in the past made several such offers, but here is one that I consider especially liberal. If you are not a subscriber to the

Bee-keepers' Review, send me $1.30

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Vice President The Frisbee Honey Co.

FLORA E. FRISBEE.
Secretary-Treasurer The Frisbee Honey Co.

[See pages 145 and 149.]

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X AUGUST, 1900 No. 8

SPRING LOSSES.

This is the Season to Guard Against Their Occurrence.

BY S. M. KEELER.

MR. M. F. REEVE, under heading "Cold Weather Prevents Brood-rearing," page 104, June number AMERICAN BEE-KEEPER, says "Complaints were made at the Philadelphia Bee-keepers' Convention that the extremes of weather and backward spring prevented brood-rearing to replace the natural losses of the old bees."

Now I contend that the first and greatest cause of all this set-back was lack of the production of young bees through the last half of July and August, 1899. I think it could not be considered a hard winter for bees, and attribute the great loss to the severe drouth all of last summer. After the frost went out of the ground in the spring there was not rain enough in this section to wet the ground deep enough to plow for corn through the whole season. The ground was so dry and hard that much plowing for buckwheat as well as other crops had to be abandoned. Bees suffered loss the same as everything else. In many apiaries the bees did not get honey enough to winter. The old bees keep dying off the year around and in a good season they will keep up the supply of young bees and more; but last summer, with almost no honey coming in, they nearly stopped brood-rearing. As far as they go the old bees will help to keep the brood-nest warm through the winter months. That winters the swarm. But to spring them we need a large force of young bees that were raised last July and August to go into winter quarters. Feed enough in July and August, if necessary, to keep up brood-rearing.

What say you all?

Chenango Bridge, N.Y., June 20, 1900.

RE-QUEENING.

Details of a Cheap and Convenient Method.

BY F. GREINER.

MANY of us bee-keepers, I believe, do not fully realize the importance of having young queens in our hives, or else more of an effort would be made to secure the advantages young queens afford.

If we could have a cheap and easy method to re-queen a large portion of our colonies it would be a nice thing. I have again the past season followed such a plan, which was first outlined to me by Mr. H. E. Perry, of Manchester, and which I have somewhat modified to suit my own notion. Mr. Perry utilizes the mother colonies, after having cast their prime swarms, for his purposes. He largely uses shallow brood-chambers; I, half-story hives. Let us suppose a colony to be on three half-stories, all full of brood, honey etc. It swarms to-day. We treat it *a la* Heddon, and on the seventh day we move it, allowing all the older bees to return to their former location, where they will join the young swarm. We now separate it into three parts, placing each of the three half-stories upon bottom-boards and then, giving each a new location, either on top of a colony with an old to-be-removed queen, or by the side of such. Here we leave them undisturbed till the young queens have become fertile. If we have valuable stock we wish to propagate from, then, of course, we must keep ripe queen-cells on hand from such, which is not very difficult, if we set out for it. Any good colony can be made to raise them *a la* Doolittle. These we substitute for their own. As soon as one of these shallow brood-chambers becomes well filled with eggs we move the colony by its side, which has the old queen, away, at the same time shifting the super over unto the hive with the young queen. I also proceed to shake the bees off from half of the combs of the moved-away hive. The aim is to make the colony with the young queen strong, so the work in the sections may not be interrupted. It is well to use an entrance-guard when thus shaking off bees from one colony to strengthen another; then should, by chance, the old queen be among the shaken-off bees, I would detect her and could return her to her own hive, or else kill her and give a ripe cell after a day or so instead. If increase is undesirable several of these moved-away colonies may be united and tiered up three or four high. The combs will generally be found largely filled with honey at the close of the season, and those not containing brood may be extracted. If we wish to increase, then all the moved-away colonies may be set up separately, the queens may be hunted out (which, in these depopulated hives, is not a difficult matter) and ripe cells are then given. At the end of the season we will have gained more colonies than we had swarms, and our principal stock has been kept in working order throughout the season.

In making these changes, substituting one hive of bees for another, adding bees from one hive to another, etc., it must be borne in mind that all this must be done *during the honey season*, or there would be trouble. For example: All the young swarms I have during July, just before or at the beginning of the basswood honey-flow, I hive on half-story hives—one half-story to each swarm. I desire to renew the queens in these hives; but by the time I deem it advisable to do this work, the basswood season is over. I now wait till the buckwheat is in full blast, when I unite a small colony having a young queen with each young swarm colony, thus forming a full colony again occupying two half-stories. This uniting half-story colonies is done by placing them one on the other; but of course as we wish to save the young queen, the old queen must be hunted out. With black bees this is not always easy and may be accomplished by use of an entrance-guard or an Hanneman bee-sieve.

I desire here to remind the reader that Mr. Hanneman, of South Brazil, is the originator of the queen-excluder, although he did not use punched zinc-sheets. In the *Brazilian Bienenphlege*, April number, 1899, Mr. Hanneman says: "I manufacture my bee-sieve of brass wire two MM. thick; it stands on four legs. To the upper part is attached a cloth apron one yard long, making it very convenient to shake in the bees and tying up the sieve." Mr. Hanneman also condemns the sieve made from zinc with holes punched in as an instrument of torture, cheap and very poor.

June 3, 1900.

* * *

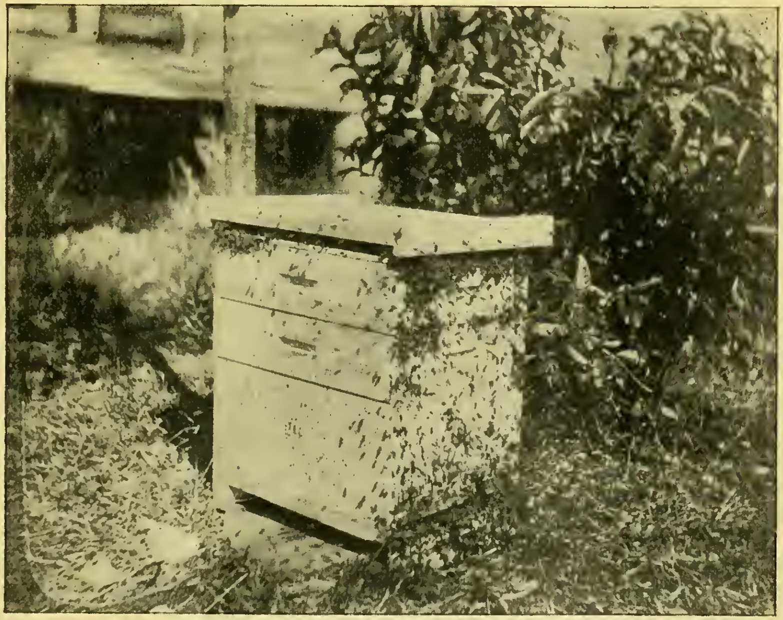
The busy bee leads a busy life;
But its end is very painful.
—Geo. B. Smith.

CONTROLLING ROBBERS.

THIS is a question in which some of our recent correspondents are interested. As the season has now arrived, or is fast approaching, when trouble from robbers is most likely to occur, it may not be amiss to offer a few suggestions along this line.

Colonies of bees in good working condition are not ordinarily attacked by robbers; and if it should occur, no uneasiness need be felt for their ability to protect themselves. Such a condition would result only when, through carelessness or accident, the bees of the same or adjacent apiaries had been thoroughly aroused to it. Nothing more effctually incites wholesale robbing than to expose honey during a dearth from natural sources. When once this has been done, the persistence of the stronger to prey upon the weaker colonies is as remarkable as it is annoying to the apiarist.

By far the better way of dealing with robbers is to carefully guard against the beginning of their work. Should it be necessary to manipulate a colony at a time when robbers are troublesome, it is an excellent precaution to perform the work under a hive-tent. If convenient to do so, the chances of an attack will be further reduced by doing the work in the evening. Great care should be exercised that no particle of honey is left daubed about or upon the hive or the robbers will most likely have cleaned the hive of all honey, both inside and out, ere the bee-keeper has breakfasted.



A BAD CASE OF ROBBING.

When the honey-flow has ceased we consider it a good plan to allow the grass and weeds to grow up about the hives. This is rather unsightly to the bee-keeper of tidy habits, but we believe it serves a useful purpose, especially in the case of nuclei.

When bees are in a robbing mood any changes in the general appearance of the apiary, by re-arrangement, removal, addition of hives or other objects, may be followed by bad results. While in a general sense the full and free performance of such work is not regarded as at all hazardous, with direct reference to our subject—Robbers—it should be borne in mind that the less disturbance about the apiary the better when honey is nor coming in from the field.

If a weak or queenless colony is observed to be troubled by robbers, the entrance should be contracted to a single bee-space. A handful of wet grass placed loosely over the entrance, tends greatly to discourage the invading force. If the robbers have not yet gained control, a free sprinkling of water upon the clusters trying to gain entrance about different parts of the hive, dampens their ardor as well as their wings, very much to the advantage of the defense.

Many methods have been recommended for severe cases of robbing, such as exchanging places with the two colonies engaged; removing the hive attacked to the cellar or some dark room; giving the robbers restricted access to combs of honey some distance from the apiary, etc. Our observations will not warrant approval of any method which adds to the confusion or further incites the bees' determination to obtain honey from other than natural sources.

When a case of robbing has reached that advanced stage by which it is enabled to rush in and out of the hive unmolested, we think it the wiser plan to permit them to complete their plundering work, and when they have finished and the confusion has subsided, turn over to them also the combs and brood, if any. By so doing other weak colonies are not nearly so liable to be attacked.

◆

Bill—"They say there is a good deal to be learned from the busy bee."

Jill—"So there is; but, as a rule, people are not anxious to take points from them."—*Yonkers Statesman.*

WINTER PROTECTION.

Instances where it was Lacking—A Method of Securing Covers.

TALKING about winter protection, it appears to be a difficult problem to determine just exactly what is the best means of bringing colonies through the cold weather in good condition. What seems to suit one locality is unsuitable for another. As an instance, a neighbor had two colonies of hybrids which were placed on a winter stand a year ago, and were given the protection of a house which was open toward the southward. When the blizzard of February last struck this neighborhood, over went house, bees and all, and there they laid until Spring. The covers were off, and the snow beat in and covered everything up. Every one expected to see the colonies frozen stiff and dead. Quite the contrary: they survived apparently uninjured and the way they threw off swarms in May and June was enough to set the youthful owner wild, and at the end of the season there was quite a nice lot of surplus to be sold.

Here's another instance: In the same storm, Mrs. E. A. Starr, a well-known Philadelphia newspaper writer, who has an apiary in South Jersey, learned that the covers had blown off several of her hives. She had no chance to visit the place for several weeks and expected when she was able to pay a visit to the farm to find all her bees frozen to death. She was agreeably surprised, however, to discover that the little workers who had had the roof blown off their homes, were none the worse for their rough experience, although the only protection they had had against zero blasts were the newspapers which their owner had tucked across the top of the frames under the covers at the advent of winter.

In placing the supers containing cover on my own seven colonies at the beginning of the present winter, I took the precaution, in order to prevent the wind from blowing them away, of fastening them to the bodies with pieces of hoop iron. Two holes were punched in each strip of iron, which was about three inches long, and one screw at each end fastened the iron to the super and body and made everything firm.

Rutledge, Pa.

HON. RUFUS K. FRISBEE.
See also page 149.

HON. RUFUS K. FRISBEE.

In addition to that which we have said elsewhere in this number of The Bee-keeper regarding the Frisbee Honey Company and its splendid work in the development of the honey business in Denver, we have pleasure in directing the reader's particular attention to a few interesting points in regard to the venerable gentleman at the head of this prosperous firm. Mr. Frisbee is now in his eighty-second year, and a local newspaper of recent date says of him:

"Although over eighty years of age, Mr. Frisbee retains the vitality of youth and may be seen almost daily taking his accustomed walk, drive or wheel ride of from five to ten miles, simply to gratify his exuberant spirits and to get the most out of the invigorating climate of Colorado."

Mr. Frisbee has served the City of Denver as its Mayor; and away back in the sixties held the position of State Superintendent of Public Instruction. He was also a prominent banker for some time in Denver; and today he enjoys the further distinction of being the only exclusive honey merchant in that city. Mr. Frisbee now anticipates the pleasure of attending a family reunion, which is to be held at Roxbury, N.Y., in September, and also a visit to his old plantation in Virginia. Taken in connection with the fact that Mr. Frisbee has been a successful farmer and apiarist in Colorado, and is, we believe, associated with the publication of a Christian Endeavor journal, these things show creditably indeed as the accomplishments of a life which he is yet hopeful may be prolonged for another score of years.

Mrs. Flora E. Frisbee is the wife of J. Charles Frisbee, who founded the business in 1882. He is a son of the senior member of the firm, Hon. R. K. Frisbee. Their portraits appear in this number. (See frontispiece.)

INTRODUCING VIRGIN QUEENS.

Something in Regard to This and Other Matters of Interest to Those who Handle Nuclei.

BY W. H. PRIDGEN.

THE only thing new that Brother Doolittle will draw out on the introduction of just-hatched queens to colonies from which laying queens have been taken from one to three days, is my astonishment that any one should meet with the dismal failure he reports. I am glad I have Dr. Miller as a support, inasmuch as Doolittle failed; and I am not sure but that I got the idea from him.

The next morning, after reading the July BEE-KEEPER, I caged some queens and in ten minutes gave to one of the neuclei from which a queen was taken, a virgin that was left in the nursery when distributing those that had hatched during the night among the nuclei that had been queenless from one to three days, and two days later I found her as lively as a cricket.

Usually I open the hive, give a puff or two of smoke, let the queen crawl down between the combs, give another puff and close the hive; and especially if the weather be at all cool; but it is not uncommon to give the puff or two of smoke at the entrance, allow the queen to crawl in and then give another puff behind her, at a safe distance, not to burn her.

For three seasons virgins have been given instead of cells almost exclusively, and I do not have enough of them rejected to justify looking through the nuclei until they are expected to be found laying. In fact, I have learned from experience that the greatest loss occurs by disturbing the nuclei just before and after the mating period.

It must be that Bro. Doolittle tried giving "downy misses" at a very unfavorable time, or else allowed them to get too old. They should not be old enough to be very active; they should be removed from the nursery at least three times a day; and I do not find any too old that emerge during the night, though I usually assort them and give those that show by their color and activity that they are the oldest to colonies that have been queenless the longest.

It is not uncommon to give queens an hour or two old to colonies that have been queenless two or three days without using smoke; but it is safer to use it, and especially if there is no field work for the bees. When the bees are actively engaged I consider one day of queenlessness sufficient and often risk them the same day the laying queen is removed, to be looked after a day or two later; but at other times I prefer waiting at least two days and then cause the bees to set up quite a roar before allowing them to crawl in. I may be mistaken, but I am of the opinion that the sooner they are given after the laying queens are removed the better, provided it is going to be done before the bees fully realize their queenless condition. The virgin partakes of the scent of the colonies before there is any excitement and may be accepted as supercedure queens; and while I lose only a small per cent. of those given at once, during a flow, I would recommend queenlessness for two days, as a rule; in other words, simply vary the conditions as is recommended in giving ripe cells, not only in the time of queenlessness, but the amount of smoke used as well. I never handle the young queens, but allow them to crawl from the nursery into wire cages and from the cages into the nuclei. It should be remembered that they are too young to run in, as they crawl before running.

It may be that the conditions of the nuclei have some bearing on the subject, though I follow the same course, only varying the time of queenlessness to never more than three days, if I can have the young queens ready.

I use three full-size frame nuclei and prefer having one comb full of honey and at least enough bees to nicely cover two combs. The bees in a nuclus answering this description are less excitable than a mere handful, and especially on scanty stores, and consequently virgins or cells are more readily accepted by them. The queens are more easily found and less liable to be balled during manipulations or the mating period, or to fly from the combs while being handled, a thing they often do just before and after they commence to lay, if there are not enough bees surrounding them to give them a feeling of safety. Besides, such nuclei have eggs enough deposited in a shorter time to keep up the force than do weak ones, and also furnish combs of brood to be used in forming others or to build up weak colonies.

In early spring I form enough nuclei in full-sized bodies to hold the combs used in others and after I am done multiplying them the combs of brood from the three-frame nuclei that become crowded are given to those being built up, until they reach a pretty safe point for wintering, and then as queens are disposed of late in the season the combs and bees are added to these colonies, which usually winter as well as any.

The reference here given to nuclei further than seeing that they are amply supplied with bees and stores, has no bearing on our subject, but is given that some may be benefitted who do not know any easy way of uniting their nuclei to good advantage. Neither do I want to make the impression that any special provisions are necessary to have the "downy misses" accepted, for with me it is done with the same assurance of acceptance as is the case with ripe cells under like conditions.

Creek, N. C., July 11, 1900.

* * *

Pleased with His Premium Queen.

MITCHELL, Ore., June 18, 1900.

MR. H. E. HILL, Ft. Pierce, Fla.

Dear Sir:—The premium queen that you sent me on June 5th has arrived and begun business in a queenless colony. She is the finest queen I have ever seen. My wife says I think more of that queen than I do of her, so you may see how well pleased I am with the queen. I think I will send you an order soon for a dozen more. I have a yard of fifty-one colonies—all common stock.

Yours truly, JOHN A. FLOCK.

[We have more of the same kind of queens to send to our friends who will send in clubs of five yearly subscribers, as did Mr. Flock. It is not the difficult task to secure new subscribers that many would imagine. We will gladly send sample copies, and promptly mail the queens. We guarantee the safe arrival of queens as well as the excellence of their characteristics.—EDITOR.]

* * *

UNITED STATES BEE-KEEPERS' ASSOCIATION.

Secretary—Dr. A. B. Mason, Station B, Toledo, Ohio.

General Manager and Treasurer—Hon. Eugene Secor, Forest City, Ia.

OUR
EXTRACTOR

From The Bee-keepers' Review.

ASSOCIATION AND CO-OPERATION THE MOST HOPEFUL FIELD.

Along the line of hives, supers and fixtures there does not seem to be much chance of great improvement. Our implements have been so simplified and improved that he would be a bold spirit, indeed, who would start with the idea that he could much shorten or cheapen operations, and thereby add to the income by lessening the cost.

Methods have been explained, discussed and examined so often and so fully that a practical man cannot hope for much along that line, to either increase the crop or income.

But when we have got the crop produced and ready to fix for market, the whole mass of bee-keepers are at sea; no fixed and uniform method of grading or style of package prevails. If a dealer orders a certain grade of honey from twelve different producers, he is liable to get one dozen kinds as to grade and package, even if the quality is uniform, and it is the producer who has to stand the loss to even it up. One or two of the twelve producers will undoubtedly sell at a different price than the others; maybe at a loss through ignorance of its true value. Every producer is not by nature a salesman. Then why should he keep trying to be one? Are we, as a class, so stupid or full of conceit that we are unwilling to say there is something we do not know; something someone can do better than we can?

Co-operation and association would give us a chance to put the selling of our crop into the hands of a good salesman, to have all our honey graded by a competent grader, who works under instructions from a properly authorized person competent to establish a grade.

Our packages, both for comb and extracted honey, would be uniform; so that a dealer could buy a carload all alike, and a sample would be a sample of the whole.

Packages, being ordered by the carload for the Association, could be purchased at greatly reduced prices and shipped to the user at much less cost for freight.

Below are given, in a condensed form, some of the essentials for co-operation, any feature of which admits of much elaboration.

In order to establish a bee-keepers' and honey exchange there must be enough beemen of one mind who produce enough of bee-products to make it an object, and the nearer it comes to embracing all of the beemen in the territory covered, the better it will work: for it is the outsiders and those who wait to "see how it works" that make trouble. It is much easier to criticise and find fault than it is to be a pioneer and bear the brunt of organization and starting the machinery necessary to carry on a successful exchange.

C. A. HATCH.

This means a giving up of many of our individual rights for the common good. "The greatest good to the greatest number" must always be the motto of successful exchanges, and a willing and cheerful agreement by the minority to the will of the majority. This similarity of ideas and oneness of purpose must be the foundation of associated effort. First, the association of ideas, next the association of individuals holding those ideas, then the association of products and the division of the profits of the association. All this will cost effort and money, and, in the pioneer stage, may cost even more than the profits; but if the course is maintained, results are sure and certain.

Concentration of products is another essential. First, that all may be inspected and graded according to a uniform system, for no two individual beemen grade their honey alike, and buyers have to take all this into account and buy on a margin large enough to provide for all variation in grading.

Car lots can thus be shipped at one time thereby getting a rebate on rate of at least one-half. Buyers, also, can inspect a whole consignment at one place, thereby saving expense to them and enabling them to put more money into the purchase price. The selling agent can keep better posted on prices and know better how to get the most out of the product. than many individuals with divided interests, scattered over a wide territory, can hope to do.

Competition of buyers could be more easily obtained where there is a large amount than where the product is scattered over a wide area. Cash sales could often be made, thereby avoiding consignment on commission, which is always more or less unsatisfactory.

Uniformity of package is another thing that can be secured by association and mutual agreement. Bee-keepers will never realize the best prices for their honey until certain kinds of honey are put up in a uniform package the same as dairymen put up their products.

To summarize—
1st, Community of thought ;
2d, Association of individuals ;
3d, Concentration of products.

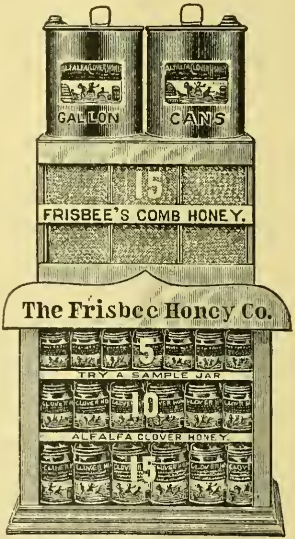
Advantages—
1st, Saving of freight rates ;
2d, Uniform grading.
3d, Encouragement of cash buyers;
4th, Relief of individuals from the trouble and annoyance of marketing their own crop;
5th, Stiffening of prices by knowledge of markets etc.—C. A. HATCH, Richland Center, Wis.

THE "CASH AND QUEENS"

this month go to W. H. Pridgen, F. Greiner, M. F. Reeve and S. M. Keeler. We will have to rule Mr. Doolittle out of this, so as to give new writers a chance. We hope to hear more from our amateur friends, to whose letters special attention will be given. If you have any photographs that will serve to illustrate your contribution, and will send them along, you will be quite sure of getting the cash or a queen—as you prefer.

ENTERPRISE REWARDED.

THE push, pluck and progress characteristic of the West is applied by The Frisbee Honey Company (Incorporated), of Denver, Colo., in a manner that cannot fail to interest every one who has the well-being of our pursuit at heart.



FRISBEE'S HONEY SHOW CASE.

The Frisbee people have made a study of the production and sale of honey for eighteen years, making a specialty of the justly celebrated product of alfalfa, which is hardly excelled by any variety of honey produced in the world. Absolute purity and the excellence of quality resulting from experienced handling, are doubtless factors which have aided in the development of their present successful business no less than the very attractive style which it presents in the retail stores.

The retail case herewith shown was devised by the Frisbees for use in their own trade. The woodwork is finished in white enamel. Two dozen cans each of the one-fourth, one-half and one-pound size, a twenty-four-pound case of comb-honey and two one-gallon cans are contained in the display, of which they have over four hundred on exhibition in the City of Denver. The quarter-pound size, which retails at five cents, serves to acquaint the prospective buyer with the quality of the goods before investing in a larger quantity, and the firm finds it a great success. The figures on the glass indicate the prices of the various packages. The back of the exhibition case is provided with a door from which the honey is removed as sold, thus leaving the display intact in front.

They are now publishing the seventh edition of ten thousand copies of "Food Value of Honey," an illustrated book of 54 pages, printed on nice calendered book paper, and having a beautifully designed cover, lithographed in colors. These books are distributed free to families, and abound in honey recipes, formula and general information relating to honey and its various uses as food and medicine. They attribute their success largely to the educational effect which has resulted from a free use of this book.

In addition to this they manufacture a pure honey cough drop of delicious and excellent quality, as we know from personal trial of them. These are on sale at something like forty drug stores in Denver. The Frisbee Company appears to be developing in Denver a business as profitable and promising as that which was precluded in Philadelphia some years ago by the death of Arthur Todd.

It is evident that in this line modern methods of honey production have paved the way to new and remunerative business opportunities. Our many large cities and hundreds of smaller ones afford possibilities for the indefinite extension of this enterprise. No half-hearted trial of the business will ever achieve success. Confidence, determination and experience are necessary; and to such there need be no question as to the successful result. Every bee-keeper and every bee-journal should encourage the enterprise of such toilers for trade in pure honey and its products and thereby extend the present limits of demand.

The Frisbee Honey Company affords a splendid example of what others may accomplish. THE AMERICAN BEE-KEEPER wishes them long life and continued prosperity. They deserve it.

THE AMERICAN BEE-KEEPER

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THE W. T. FALCONER MANFG. CO.

H. E. HILL, - - - - - EDITOR.

Terms:

Fifty cents a year in advance; 2 copies 85 cts.; 3 copies, $1.20; all to be sent to one postoffice.

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Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

☞ Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER, Falconer, N.Y.

☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

What has the harvest been?

Remember the big convention at Chicago an the 28th, 29th and 30th of this month.

As the summer wanes so declineth many a sturdy hope, now reposed in fall flowers and buckwheat.

Send for sample copies of The American Bee-keeper to distribute among your bee-keeping acquaintances, then induce five of them to subscribe, and thereby become entitled to one of our choice Italian queens, without cost.

Current comments in regard to the subject would indicate that bees, poultry and Belgian hares afford a profitable combination in the way of business opportunities for the young man who would prefer to avoid the beaten paths in industrial lines.

The matter of getting honey and combs in and out of the extracting room without admitting a lot of bees, is a subject that will interest many. We shall try to give an idea next month which renders its accomplishment very simple and practical.

The American Bee-keeper will be sent one year for twenty-five cents to any one presenting certificate of membership in any bee-keepers' society in America. It is ten years old—long since past the experimental stage—its circulation now encircles the globe and is steadily increasing. We know of no other bee-journal which offers a discount of 50 per cent. to association members.

If any of our readers on the Atlantic seaboard have a nice article of white clover extracted honey, and would like for variety's sake to have a can of Florida mangrove honey for family use, we should be pleased to exchange a five gallon can with him. Mangrove is a mild-flavored honey, light in color and not so heavy as well-ripened clover. It is regarded by some experts as unsurpassed as a table honey, and some prefer it to the white clover.

Speaking of cell-cups having the cocoon base, Dr. Miller, in *Gleanings*, calls attention to the fact that inasmuch as the larva is soon floated out of the diminished portion of the cup which is to receive the cocoon, the larval queen has as good a chance for the fullest development as those matured in cups having the oval base. While the cups with large bottoms will not answer for the transfer of cocoons, it is apparent that the cup constructed for the reception of the cocoon is perfectly adapted to the requirements of those breeders who practice the original Doolittle method, as we ourselves do. In fact, we rather favor the cocoon base when royal jelly and larvæ are used. Why, then, should the two styles of base be necessary?

Secretary C. R. Russell, of the Worcester County (Mass.) Bee-keepers' Association has sent us a long account of a recent meeting of that body, from a local newspaper.

The report shows conclusively that the bee-keepers had a jolly time, and we hope a profitable time was spent, of which there is no occasion for doubt. The reports of such gatherings would be very interesting, as well as generally instructive, if their preparation for the press could but be directed by some one conversant with the science and practice of bee-keeping; instead of by some city-bred reporter, who, knowing nothing of the business, is incapable of grasping or portraying any idea or incident intelligently, aside from that which may occur of a ludicrous nature. It is indeed remarkable what unlimited scope the occasional subject of bees, bee-keeping or bee-keepers affords the newspaper man for exercising his wit and wisdom. The frequent meetings of the Worcester Association, at the apiaries of its members, is after the style of the Philadelphia bee-keepers, and they are attended with much pleasure and profit to those who attend.

Mr. H. T. Gifford, in *Gleanings*, gives some information in regard to the nature and habits of the red ant which is so destructive to bees in the South. All our published works on bee culture bear evidence of a very limited knowledge of these great pests, whose methods of attack render them most difficult to combat. Coming, as they do, apparently for the special purpose of slaughtering bees, from the surrounding country, and taking up their temporary abode in an old wood-pile, in the long grass, between the walls of a building, in a hollow stump or tree, in a ventilated cover or thickly clustered on the under side of the bottom board, or in the vacant apartment of a contracted hive having a weak colony, and their frequent movings from place to place, render the ordinary method of applying bisulphide of carbon, useless. To be effectual the fumes of the carbon must be closely confined; and with thousands of colonies of ants scattered everywhere about in the woods and fields, any one of which is likely to pounce upon the apiary without a moment's warning and entirely destroy the colonies attacked in one night, no method of treatment now advocated serves the purpose at all. The man who devises a practical method of guarding against their ravages will immortalize his name in the South.

"MUST USE WHAT THE MARKETS DEMAND."

Mr. N. E. France, one of the largest producers of honey in this country, in *The Bee-keepers' Review*, writes: "If barrels are made of a good quality of staves, kiln-dried and iron-hooped, the barrels then stored in a dry, airy room and the hoops driven up the day barrel is filled, they will never leak. This is our experience for the past twenty years; sending barrels thousands of miles, and to nearly every state east of the Rockies. We must use such packages for honey as our markets demand. The next best package is the 60℔ tin can, cased; and where good cooperage cannot be had, and at cheap figures, the boxed tin can package is perhaps as good as any."

Saying that a well-coopered and properly prepared barrel "will never leak," is putting it pretty strong; yet Mr. France is a man of experience, and we believe he comes pretty near stating the matter correctly. This matter of packages appears to look quite differently in the eyes of the man who produces honey for a livelihood and the man who buys his product at as low a price as possible and sells it at the highest possible figure. They cannot see it alike, of course; but good barrels are in use, as a shipping package for honey, to stay, and the middleman must adjust his business accordingly if he will continue to speculate in honey.

OUR FRIENDS AGAINST US.

A *New York Mail and Express* reporter some time since, it is said, met "a man from the country." This man, it is stated, knew another man who lived in the country, and the "other man" was known to produce comb honey extensively by supplying his bees with glucose from an open barrel. A city acquaintance of "the man from the country" had an apiary also, and so entirely unaccustomed were the bees to natural flowers that they would shy at a honeysuckle; yet he did a wholesale business in honey. Free access to a supply of liquid glucose was the secret of his success, which enabled him to do a "wholesale business in honey" with but fifty colonies of bees.

City newspapers of the present day are keenly alert for anything and everything that savors of the mysterious or wonderful. The cellars and garrets of Christian and heathen lands are ransacked for something to surprise the readers of their mammoth Sunday editions. "Interviewing" is the reporter's great hold. The personal responsibility for his ideas of the ocean's depths is shifted to the shoulders of the noted diver "interviewed." Some eminent mineralogist or mining expert is made to stand between him and personal responsibility while he relates a hair-raising story of the recent discovery of some defective flue in the bowels of the earth. He never—hardly ever—fails to quote good authority in laying before his readers the recent very startling revelations through exploits around the celestial bodies while taking temperatures of interplanetary space for scientific purposes, or draws a map of this mundane sphere as it will appear a few thousand years hence. He must have what is called in the profession "a nose for news," and be able to round out and convert into a readable story any traces of something new. He is often required to draw entirely upon his own imagination for readable matter with which to please the managing editor and feed the hungry linotype; that is, if he would hold his job.

Is it then any wonder that he should "interview" a man from the country, and learn something startling in regard to the mysteries of the little boxes of comb honey of commerce? We think not; and so long as such trashy reading is confined to the columns of the newspapers we can probably do no better than to work on, trusting to the developments of our industry to dispel the ignorance which now prevails in regard to bees, honey and bee-keepers' methods. When, however, the agricultural press lends its influence to the propagation of such damaging and exceedingly unjust yarns, we draw the line, and in defense of the industry whose interests we cherish as the source of our livelihood, we cannot afford to be unduly modest in exposing the actuating cause of such publications. Since they rely for support wholly upon the agricultural industry, of which bee-keeping is but a branch, it appears quite improbable that the motives are malicious. We are then forced to the conclusion that *ignorance* is responsible for the injustice which they persistently continue to inflict upon the industry whose interests they are pledged to guard and support.

This *Mail and Express* item appears to flourish as did the old Wiley "pleasantry" many years ago, and is becoming quite too popular with agricultural papers of the country, and editors who make use of it stand sorely in need of light, which their readers should not hesitate to bestow.

Some editors, it is a pleasure to note, gladly accept any information enabling them to make amends for injury inflicted through thoughtlessness or ignorance; but there is another class who either refuse or with great reluctance acknowledge an error on their own part, thinking, no doubt, to thereby avoid a humiliating situation.

In *The Florida Farmer and Fruit-grower*, a very prominent agricultural paper of the South, under the heading, "The Apiary," this lively brain-child of the *Mail and Express* hoaxer was the only information (?) given in a recent number. We felt constrained to enter a mild protest in behalf of the slandered industry. Our comments were published in full, but the editor evidently felt it his duty to append, in serious language, a foot-note, tending to justify continued faith in the original version.

The *Farm, Field and Fireside* copied the same slanderous item, and when the *American Bee Journal* called its attention to the injury such falsehoods work to bee-keeping interests, it was given the laugh for its stupidity in being unable to see the joke. The whole thing was simply a "joke," as the *Farm, Field and Fireside* had seen it. He kept on talking, however, until he had clearly demonstrated the fact that he knew little or nothing about modern bee-keeping, and spoiled it all.

Agricultural editors should be informed in the various branches of the industry; and many of them evidently need to brush up a little on "apiculture" before they assume the role of instructor.

THE JULY BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

THE first name we find in reading the July number of The Bee-Keeper is that of our old and familiar writer, F. Greiner. While I have never seen Bro. Greiner in the flesh, still I have learned to love him and call him friend, from the fact that his every effort in writing for the bee-papers seems to be to impart practical information to others so that our pursuit may be advanced and the world made better by the part he is playing in it. Many are the hints I have obtained from Greiner's writings, which hints, when put in practice, have yielded fruit—"some thirty, some sixty and some an hundred fold." Would that all writers could write from as unselfish a standpoint as does Brother Greiner!

PREVENTION OF SWARMING.

I hope every reader of The Bee-Keeper will read that article of Brother Greiner's until they have it fully at their command during every swarming season. I have practiced it much; and where we wish both comb and extracted honey from the same apiary I doubt if there is a better way of managing bees, whether at the out-apiary or at home. But where we wish to pile up all the comb-honey possible from our bees as well as to secure a moderate increase to make good any loss we may suffer in wintering or otherwise, I have a plan which I prefer to Greiner's, and without further emphasizing his, which is the best where both comb and extracted is desired, I will tell the readers of this other plan which I use, not only at the out-apiary but at the home-yard as well, for of late years I do not practice natural swarming at all, and very few swarms issue anywhere. When the time arrives to commence operations—this being found out in just the same way Bro. Greiner tells how to do—I go to a strong colony, which we will call No. 1, and shake ALL of the bees and queen from their combs into a hive prepared as Greiner tells; if I do not have plenty of combs already built and partly filled, or wholly so, with honey. Where I have the combs already built I prefer to use them with this plan rather than have the bees build more. Not only this, but it saves these combs from the moth; and a hive of combs is a great help toward a good yield of comb-honey, where this plan is used, and especially so where they are filled, or partly so, with honey. This prepared hive is placed on the stand of No. 1 before any bees are shaken off their combs and the surplus arrangement from the old colony placed thereon. In this way we have a colony as good as one and a half good swarms would make, containing all of the bees and the queen from a populous colony, a hive full of comb and the part-filled sections from No. 1, the whole being ready for work to the best advantage during the honey harvest. Next take the combs of brood taken from No. 1 to another populous colony, which we have heretofore called No. 2, having previously moved No. 2 to a new stand a rod or two away. Go to your nucleus or some weak colony and take the comb the queen is on, taking it—bees and all—and shake them off in front of hive on No. 2 stand and let them run in. Now put on the sections and the work is done. At No. 2 you now have a colony composed of a full hive of combs and brood, a good young queen and workers enough to protect her and all the working force from the colony formerly occupying the stand of No. 2, which makes a big, strong colony, and, as far as my experience goes, one that will produce a large quantity of honey. The colony moved a rod or two away, now called No. 3, has a hive of combs and brood, their old queen, and sections partly filled, but have lost their working force. In from eight to twelve days they are stocked up again with workers and are also in fine condition for the harvest, which is now commencing, or in full flow. In this way a large yield of section honey is secured, a moderate increase made, and all done with an assurance of being master of the situation, very much above anything known where allowing natural swarming.

CANDIED COMB-HONEY.

On page 123 Mr. Applegate gives us something new regarding how to dispose of honey which has candied in the combs, the same being done so that we can reap a good profit from that which we had formerly counted as loss. Many thanks, Bro. Applegate. Where a large amount of solidly candied honey has accumulated in our combs, and we want these combs for early spring use, this plan will be a great blessing and should be remembered by all. But where we are not obliged to use combs of candied honey till hot weather arrives, according to my views, they can be more profitably used than in turning the candied honey into vinegar. Just use them as Greiner suggests, when making shook-off colonies; in fact, use them in any spot or place where frames of comb are wanted, and no trouble will be experienced from the candied honey being wasted by the bees tumbling it out at the entrance or their leaving it in the comb year after year. It is only in cool or cold weather that candied honey is wasted by the bees. In warm weather the heat of the hive and the manipulations of the bees cause it to all liquify, even to the little hard grains which we see thrown out in the spring. In this way I have caused the bees to use combs of honey candied SOLID without waste: yea, more: they have used them to my advantage by way of turning this honey into bees, or, as in case of shaken-off colonies, by turning it into nice section honey. But it never goes into the sections unless there is a yield from the fields, for there must always be a flow of honey from the flowers in order that what is in the combs in the brood-chamber be carried above. Otherwise the honey which is in the way of the queen will be removed only to be turned out in the shape of bees.

BEE-ESCAPES.

Following Mr. Applegate's article is one on "Clearing Supers of Bees," by S. M. Keeler, in which friend Keeler gives the *good, old-fashioned way* of clearing supers of bees. I felt that it was necessary for me to emphasize the four words used above, as I am writing up the "good things," you know; but there is such a thing as having something which was good in the past superseded by something which is better for the present, and bee-escapes are certainly among the things which are better. I am led to think that friend Keeler is not familiar with the use of bee-escapes, and perhaps quite a few of the readers of THE BEE-KEEPER are not: and as I often have requests to tell how I use them, I will give the reader just how I do it. Before doing this allow me to say that the bee-escape is the one thing which has simplified the production of comb-honey more than anything else during the past decade. So far I prefer the Porter escape to any other which I have tried, as it is perfectly sure. After a bee passes it, that bee nor any other can ever go back to the super again. But to the plan. Have the escapes fixed in the escape-boards, as per directions from the manufacturers, and have from five to fifty of these boards, according to your needs and colonies kept. Take a board with escape in place, your smoker, a chisel or screw-driver and a wooden wedge made of ⅞ inch pine, the same being a foot long and two inches thick at big end. Now, with the chisel pry the super from the hive enough so you can insert the thin end of the wedge, till there is a crack of one-eighth of an inch between super and hive, when smoke is to be blown in this crack. Next, push the wedge in till you have the super raised an inch, when you will blow in smoke again till the bees run up into the super and down into the hive. Now grasp the escape-board with one hand and the super above the wedge with the other, lifting till the super stands at an angle of forty-five degrees or more with the hive, when the escape-board is put under as far as it will go, and the super lowered on to it. You do not have to touch the wedge in doing this, as the big end is so much heavier than the other that it falls to the ground out of the way as soon as the super is lifted off of it. Slide the super fully over the escape-board and the board (and super on it) fully over the hive, and the work is done by lifting only one end or side of the super. This way saves the twice lifting (off and then on again) of the super usually employed, which is always very exhausting to any one not a giant in strength. Now go about your business for from twenty-four hours to a week, according as you have other work to do, when you can go and take off that super free of bees, without brushing, or any fuss in the honey-room.

But, oh, dear me! here I have only noticed the three first articles and my space is all used up. I will have to tell fewer stories myself in the future, if I do much emphasizing.

Borodino, N.Y., July 10, 1900.

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Our readers are invited to take advantage of our present arrangement which provides that one dollar in cash or one Italian queen of choice stock, goes each month to each of the two persons sending us the most interesting or instructive letter for publication. Fifty cents each for the two next best letters. It is not necessary that you say they are sent in competition for the cash or queens; if the matter is found "available" the premiums will be promptly forwarded with our thanks. tf

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

NEW YORK, July 17, 1900.

There is little stock of comb-honey on the market and practically no demand through our channels, no doubt caused largely on account of risk in shipping during warm weather. We usually do little in comb-honey before September. We do not advise the shipment of extracted honey at this time for the reason that there is not much demand and quite a liberal supply, although with with our usual trade at this season of the year, it would not take long to clean up. We can hardly report reliable quotations, but must surely look for lower prices than last season.

FRANCIS H. LEGGETT & CO.

BOSTON, July 20, 1900.

There is very little of importance to note in the honey market. During the extreme warm weather as usual, the demand is practically nothing, and quotations are necessarily nominal ones. Fancy white will range from 16 to 17c.; A No. 1, 15c; and No. 1 14c., with light supplies. Extracted from 6½ @ 8½c., according to quality, with light supplies and demand. BLAKE, SCOTT & LEE.

CHICAGO, July 20, 1900.

The demand for comb-honey is good for this time of the year and the supply about as usual for this season. Best white sells at 15c.; extracted, amber 6½ @ 7c. Demand for beeswax is good at 27c. for best grades. Prices will rule as quoted above for a short time, but are likely to be lower. There is promise of a good yield. R. A. BURNETT & CO.

KANSAS CITY, MO., July 20, 1900.

Our present stock of comb-honey is just beginning to move; the supply is light. Price, 14 @ 14½ cents; extracted, none. The demand for beeswax is good, with no supply. Prices 22 @ 25c. The report from local apiarists is that their production is extremely light, and we think our market will be in good shape for imported shipments.

W. R. CROMWELL FRUIT AND CIDER CO.,
(Successors to C. C. Clemors & Co.)

BUFFALO, N.Y., July 19, 1900.

It is still too early in the season to ship honey, not until September or October, and but little is arriving. Price for No. 1 comb, 14 @ 15c. Extracted, none. The demand for beeswax is good; supply light at 25 @ 30c. No honey wanted till after fruit season, or say October. A few lots of old, selling at 10 @ 14c. BATTERSON & CO.

◆

President McKinley as an Editor.

One of the department heads at Washington recently wrote an article for The Ladies' Home Journal which required the President's approval for publication. The President asked that the article be given to him. At the end of the week the manuscript came back edited in a way which completely won editorial admiration. The President was apparently thoroughly conversant with all the marks which editors use in making corrections. Every erasure and interlineation had its proper sign, and each was in the President's own handwriting.

PROGRAM OF THE THIRTY-FIRST ANNUAL CONVENTION OF THE NATIONAL BEE-KEEPERS' ASS'N.

To be Held at Chicago, Ill., Tuesday, Wednesday and Thursday, August 28, 29 and 30, 1900; Sessions to be Held in Wellington Hall, 70 No. Clark St.

TUESDAY EVENING.—Call to order at 7 o'clock. Song, Dr. C. C. Miller, Marengo, Ill. "How to Sell Honey," S. A. Niver, Auburn, N.Y. "Bee-keeping in the City," L. Kreutzinger, Chicago. Question-box.

WEDNESDAY MORNING 9:30.—Song. Invocation. President's Address, E. R. Root, Medina, O. "Queen Rearing by the Doolittle Method," Mrs. H. C. Acklin, St, Paul, Minn. Question-box.

WEDNESDAY AFTERNOON, 1:30.—Song. "Bee-keepers' Rights and Their Protection by Law," Herman F. Moore, Park Ridge, Ill. "Trials of the Commission Man," R. A. Burnett, Chicago, Ill. Question-box.

WEDNESDAY EVENING, 7:30.—"Breeding for Longer-tongued Bees," by J. M. Rankin of the Michigan Experiment Station. "Bee-keepers I have Met and Apiaries I have Visited," by E. R. Root, assisted by Dr. C. C. Miller, Dr. A. B. Mason, E. T. Abbott and others. Illustrated by a stereopticon.

THURSDAY MORNING, 9:30.—Song. Invocation. "Various Forms of Disease Among Bees, Cause and Cure," Dr. Wm. R. Howard, Ft. Worth, Tex. Report of General Manager, Hon. Eugene Secor, Forest Hill, Ia. "Pure Food Legislation," Rev. E. T. Abbott, St. Joseph, Mo. Question-box.

THURSDAY AFTERNOON, 1:30.—Song. "Chemistry of Honey, and How to Detect Its Adulteration," by Thomas Wm. Cowan, Pacific Grove, Cal. "How to Ship Honey to Market and in What Kind of Packages," Geo. W. York, Chicago, Ill. Question-box.

THURSDAY EVENING.—"Co-operative Organization Among Bee-keepers," R. C. Aikin, Loveland, Col. "My Trip Through Wisconsin and Minnesota," W. Z. Hutchinson, Flint, Mich. Illustrated by a stereopticon. Unfinished business.

One prominent feature of the next convention will be the stereopticon work. Messrs. Root and Hutchinson, with a powerful stereopticon, will project upon the screen some photos of apiaries they have visited in various portions of the United States. The convention will be held in Wellington Hall, 70 North Clark St., about a block and a half from the office of the American Bee Journal, and about five blocks directly north of the Court-house. The hotel at which delegates may secure lodging is the Revere House, about half a block from the convention hall. The rate will be 50 cents per night, good beds will be provided, but several will have to occupy the same room. A room with a single bed will be $2.00 per night and two can share if they wish. Near the hall are first-class restaurants where meals can be secured at reasonable rates. It is assumed that railroad rates during G. A. R. week will be low, probably a cent a mile. Chicago is a central point, and there will undoubtedly be a large attendance; and, considering the attractions, it is earnestly hoped that bee-keepers will turn out in good strong force.

E. R. ROOT, President.

DR. A. B. MASON, Secretary.

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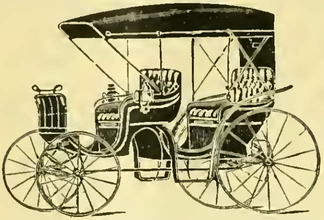

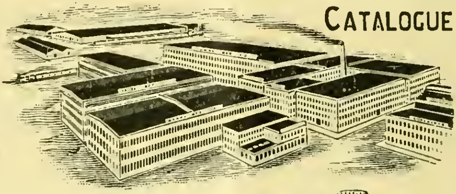

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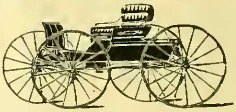

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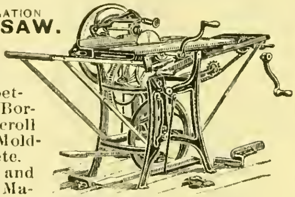

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Farmers' Institute Bulletin,
4 tf Fayetteville, N.Y.

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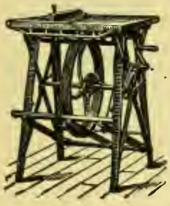
Earlier Queens!!
Earliest Queens!!!

Our strain of Italian Queens we believe to be unexcelled. Our facilities are unsurpassed. Our location being farther south than that of any other breeder in the United States we can ship queens any day in the year. No disease. Warranted Queens $1, six for $5, or $9 per dozen. Safe arrival guaranteed.

Southern Bee Company,
H. E. HILL, Manager.
Fort Pierce, Indian River,
4tf Florida.



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The Empire Washer Company, Jamestown, N.Y. make a Shine Cabinet, furnished with foot stand, blacking, russet dressing, shoe rubber—in fact, all articles and materials needed to keep shoes looking their best—and as it is made to be fastened to the wall of toilet room or kitchen, it does away with the vexatious searching after these articles which is altogether too common. A postal will bring you details of this and other good things.

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The lamp that doesn't flare up or smoke, or cause you to use bad language; the lamp that looks good when you get it and stays good; the lamp that you never willingly part with, once you have it; that's

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which give satisfaction are the kind that H. G. Quirin sends out. The A. I. Root Co. tell us that our stock is extra fine. Give us a trial order for our **Selected Stock** and see how well we can please you. All Queens sent PROMPTLY BY RETURN MAIL, with safe delivery guaranteed. Have bred Queens for twelve years.

PRICES OF QUEENS AFTER JUNE:

Warranted,	each, $ .50;	six, $2.75;	twelve, $5.
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Selected tested,	" 1.50;	" 8.00.	

Extra selected tested, the best that money can buy, each $3.00.

Address all orders to

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"HONEY LOVE" is a truly wonderful queen bee. For two seasons her colony has stored something over 200 boxes of beautifully finished honey. They have never swarmed—they stick to the boxes up to frost. This spring they are building up with a rapidity that is amazing! Regardless of winds they are out early and late. "Honey Love" is Italian; her bees are far from handsome, though—too dark to be pretty. This is her third year and we are anxious to rear as many daughters as possible while she is yet in her prime. Do you want one at $1.00? If the daughter you get should prove better than "Honey Love" we will buy her back at $25.00 to breed from another year.

"LADY FAIR" is the most beautiful Golden Italian queen we could find anywhere. This we know for we have had samples of all strains. Do you want a daughter of this lovely creature for $1.00? This stock is purely fancy—something to show off to your friends after June 1st.

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Queens large, yellow and prolific.

Circular free.

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There's information in advertisements.

Superior Stock.

Every bee-keeper who has had experience with several strains of bees knows that some are far superior to others—that there is scrub stock among bees, just as there are scrub horses cattle, sheep and poultry. Let me give my own experience. Years ago, while living at Rogersville. I made a specialty of rearing queens for sale. Before engaging in this work I bought Italian queens and Italianized, not only my own bees, but all within three miles of my apiary. In buying those queens I think that I patronized nearly every breeder in the United States; and even in those years of inexperience I was not long in noting the great difference in the different strains of bees. The queens from one particular breeder produced bees that delighted me greatly. They were just plain, dark, three-banded Italians, but as workers I have never seen them equaled. They seemed possessed of a steady, quiet determination that enabled them to lay up surplus ahead of the others. Easier bees to handle I have never seen. It sometimes seemed as though they were too busy attending to their own business to bother with anything else. Their honey was capped with a snowy whiteness rivaling that of the blacks. In addition to these desirable traits must be added that of wintering well; if any bees came through the winter it was the colonies of this strain. They came as near being ideal bees as any I have possessed. All this was twenty years ago; and several times since then I have bought queens of this same breeder, and I have always found this strain of bees possessed of those same good qualities—industry, gentleness and hardiness. In addition to this they cap their honey as the blacks do theirs. I have frequently corresponded with this breeder, and with those who have bought queens of him, and I am thoroughly convinced that he has a strain of bees that are far superior to the general run of stock. If I were starting an apiary for the production of honey. I should unhesitatingly stock it with this strain of bees.

This breeder has always advertised in a modest, quiet sort of way nothing in proportion to what his stock would have warranted, and I have decided that I can help him, and benefit my readers, at a profit to myself, by advertising these bees in a manner befittingly energetic.

The price of these queens will be $1.50 each. This may seem like a high price, but the man who pays it will make dollars where this breeder and myself make cents; and when you come to read the conditions under which they are sold, it will not seem so high. The queens sent out will all be young queens, just beginning to lay, but, as there are no black bees in the vicinity, it is not likely that any will prove impurely mated. If any queen SHOULD prove impurely mated, another will be sent free of charge. Safe arrival in first-class condition will be guaranteed. Instructions for introducing will be sent to every purchaser, and if these instructions are followed, and the queen is lost, another will be sent free of charge. This is not all; if, at any time within two years, a purchaser, for any reason WHATEVER, is not satisfied with his bargain, he can return the queen, and his money will be refunded, and 50 cents extra sent to pay him for his trouble. It will be seen that the purchaser runs NO RISK WHATEVER. If a queen does not arrive in good condition, another is sent. If he loses her in introducing, another is sent. If she should prove impurely mated, another is sent. If the queen proves a poor layer, or the stock does not come up to the expectations, or there is ANY reason why the bargain is not satisfactory, the queen can be returned and the money will be refunded, and the customer fairly well paid for his trouble. I could not make this last promise if I did not KNOW that the stock is REALLY SUPERIOR.

I said that the price would be $1.50 each. There is only one condition under which a queen will be sold for a less price, and that is in connection with an advance subscription to the REVIEW. Any one sending me $1.00 for the REVIEW for 1900 can have one queen for $1.00; that is, I will send one queen and the REVIEW for 1900 (and 12 back numbers, free) for only $2.00. Of course, this special offer is made for the sake of getting the REVIEW into the hands of those who are unacquainted with its merits. Orders will be strictly in rotation.

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Families, both Catholic and Protestant, willing to offer a good home to a boy or girl of any age from infancy to ten years and who will receive the child as a member of the family and give it such care and training as will fit it for a life of self-support and usefulness, are invited to correspond with

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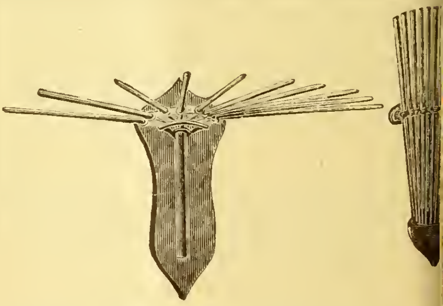

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is an invention for saving room in crowded kitchens which will surely be appreciated by every housekeeper. The warmest and dryest air in a room is always overhead, and clothes hung upon these radiating bars, which are attached by a couple of screws to the wall, are not only out of the way but in the best part of the room for drying quickly and thoroughly. Price $1.00. Made only by

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Bars are all raised or lowered by one motion.

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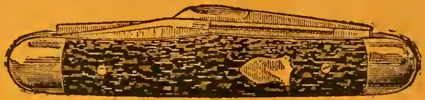

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if you want the eggs to hatch, the chickens to grow and do well, use plenty of **Lambert's Death to Lice Powder** on them. Put it in the nest, on the hen, and anywhere you want to; it injures nothing but vermin. Trial size 10 cents, postpaid. A 64 page Poultry Book and "How to Set a Hen," mailed free.

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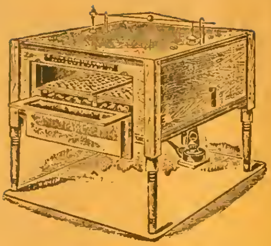
MURRAY-HEISS. CLEVELAND, O.

SEPTEMBER

1900

Vol. X No. 9

Entered at the Postoffice, Falconer, N.Y., as second-class matter.



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and I will have your subscription to THE AMERICAN BEE-KEEPER renewed for one year, send you 12 back numbers of THE REVIEW, and then THE REVIEW for all of 1900. Remember two things: You must be a NEW subscriber to THE REVIEW, and the order must be sent to

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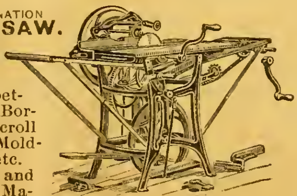

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FOR 1900

An Illustrated Magazine of SPORT, TRAVEL and ADVENTURE

EDITED BY CASPAR WHITNEY

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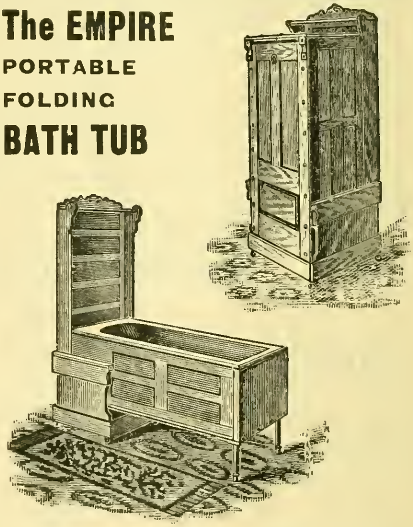

has been quite fully described in these columns in past issues. We have not mentioned it in the last few issues, but there are still a few left to be disposed of at the manufacturer's price, $18.00. If you bought this tub, or a similar one, in any furniture store it would cost you $30.00 at least. They are one of the handsomest and most durable articles ever offered at $18.00. We only desire to secure the bare cost in exchange, as we have substituted other lines in their place in our factory, and want the room they occupy in our warehouses for other goods. Ask us any questions you wish.

The EMPIRE WASHER CO.,
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THE AMERICAN BEE-KEEPER

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THE AUGUST BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

TWO bright faces greet us on opening the August number of THE AMERICAN BEE-KEEPER. That frontispiece is a marvel of perfection. What would our fathers (who talked about wood-cuts and later of steel engravings) have thought about the perfection of engravings from photographs of the present? Surely, "the world do move!" Give us more such bright faces, Mr. Editor.

PREPARING FOR WINTER AND SPRING IN MIDSUMMER.

S. M. Keeler is the writer of the first article, and talks about something worthy of the attention of every apiarist. The art of preparing our bees in July, August and the forepart of September, so that they may winter well, is one of the good things not often touched upon in our bee-papers. This used to be one of the good things Elisha Gallup used to write about in the early seventies; but of late little has been said of the matter. Where brood-rearing is carried forward into September, little fear need be had, as far as the age of bees is concerned, as to their safe wintering; and plenty of September-reared bees will almost insure safe wintering, other things being proportionately right. And those words, "Feed enough in July and August, if necessary to keep up brood-rearing," would be a good sentence to have printed in big letters on a sign-board and put up in the apiary for the one who is prone to give no heed to this wintering problem till November, as many of us are apt to do. Thank you, Mr. Keeler, for calling our attention to the matter at this time.

SEE THAT EACH HAS A QUEEN-CELL.

Brother Greiner is again on hand with a very instructive and practical article ragarding re-queening. He tells us all how it is done, so that us older ones can catch on to the fullest extent; but for the benefit of the novice I will call attention to a little item that Brother Greiner takes for granted all will understand. Those who have been "through the mill" of bee-keeping often think that all the *minutiæ* need not be told; but my experience when starting, thirty-one years ago, often tells me that it is just this *minutiæ* that beginners wish to know about *most* of all.

In the first quarter of the first column, page 142, Greiner tells us how to make three little colonies out of what is left of the parent colony seven days after it has cast a swarm. After these little colonies are formed, he tells us to "leave them undisturbed till the young queen has become fertile." Bro. Greiner and myself know that there is something more to be done than to simply set off those three parts of his

Heddon hive, or half stories, upon bottom boards, to insure a laying queen in each part. But the novice might not realize that it was necessary to know that *each part had a queen-cell.* Of course, there would be such a thing possible that a queen-cell might be in each part, left there when the swarm issued, but the probabilities are that, more often than otherwise, there would be queen-cells in only one part, or two at most. And queens come from queen-cells only. Read the article over again; it will pay you well for a careful perusal the second time.

CONTROLLING ROBBERS.

The article found under this heading, on pages 143 and 144, is without a signature. Who wrote it I cannot even guess. There are many good things in it and many good things left out. For once I will touch on the good things left out. The first good thing left out, as it appears to me, is that robbers are very troublesome only in the spring before either honey or pollen is to be had from flowers. Moses Quinby, that pioneer in bee-keeping, once said, "There is no excuse for bees being robbed at any other time than in the spring of the year," and I think he was very nearly correct. After young bees are emerging from the cells plentifully, any colony that is fit to be called by that name, will protect itself from robber-bees, and if it is not fit to be called a colony as late in the season as this, the bee-keeper is at fault, not the bees. The first hot days in early spring are the ones in which every hive is pried into by robbers, and if any colony is weak in old bees, these robbers find it out and pilfer the honey, if possible. If this same persistency to rob was kept up all through the season, nuclei and weak colonies would suffer; and so I say it is a good thing for the apiarist that this only happens in early spring.

Another good thing is to know in spring on which side of the hive (or in the middle) the bees are clustered before their first flight, or as soon thereafter as possible; and immediately *in front* of the cluster is the place for the entrance. If the bees are clustered on one side of the hive, and the honey is mainly on the other side of the hive, as is generally the case, it is only to invite the robbers to have the entrance on the side where the honey is. This one item alone, gained by reading THE AMERICAN BEE-KEEPER, is worth more than the price of the paper for a year to anyone who is not already familiar with it.

Another good thing and, to my mind the *best* of all, is to fix all weak colonies and all nuclei in any hive as follows (for only weak colonies and nuclei are subject to robbing at any time of the year): Just at night, on some cloudy, cool day (not so cool but that bees can fly), or under a tent, take the combs all out of the hive, then place a frame of honey next one side of the hive. Next to this put the frames of brood they have—one, two or three, and next the last frame a division board, filler or dummy, as they are differently called by different persons when speaking of the same thing. To digress a little: Take a piece of inch or seven-eighths board and make it so it will fit your hive below the rabbeting on which the frames hang loosely, and to the top of this nail the top bar of a frame. Hang it in the hive the same as a frame and you have just as good a division board, filler or dummy as can be made. To return; having your two, three or four frames and your dummy in, say the west part of your hive, make the entrance at the bottom at the extreme east side; and for the two-frame colony give an entrance ⅜x⅜ of an inch; for the three-frame colony make the entrance ⅜ high by ⅝ long; for the four-frame colony make the entranct ⅜ high by one inch long, and you will never have any trouble from robbing at *any time* of the year, providing said colonies have a queen, some little brood, and bees enough to in any way protect or cover those combs. If a robber-bee should enter the entrance after so fixed. it must travel over all the vacant space to the dummy, ready to be met by a guard at any time, then go under the dummy where the guards are doing duty the same as at the entrance, and if it succeeds in passing there and reaching a comb, it is a comb having brood in it. not honey, the honey only being reached after passing through all of the hive and all of the bees, clear to the further side, and no robber-bee will make such a venture. But here I am again to the limit of my space, and I have not touched on more than one out of five of the things I would like to in the August BEE-KEEPER.

Borodino, N.Y., Aug. 11, 1900.

THIS AND THAT.

Experiences and Suggestions from an Amateur.

BY FRED. Z. JONES.

SEEING that you invite short articles for publication. I thought perhaps I might have something to say that would be interesting on that line to those who keep a few bees as a side-issue and have not time or inclination to follow out the advanced rules of bee-keeping. I have ten to fifteen colonies in Dadant hives, sheltered in a bee-house. which serves to protect them from the severe winter winds. My way of preparing for cold weather is to remove any supers that may be on hives, and spread over them several thicknesses of old carpet or bed-quilts; or, in fact, any old thick cloth. Last winter was the most severe known here for a long time, the mercury staying around twenty to thirty degrees below zero for two or three weeks, and I never lost a colony. while all my neighbors lost heavily; some being completely cleaned out. This treatment also brings them out strong in the spring. Have produced nothing so far but comb-honey, and still am not troubled with excessive swarming, getting not above 20 per cent. of an increase. At first I took to cutting out queen-cells, but later discovered that it was not necessary with these big hives, especially if I am careful to put on supers in time. It is very rarely indeed that they send out a second swarm when left to their own option in the matter. It is self-apparent that I am an advocate of large hives, especially for those bee-keepers who do not follow it as an exclusive business. For those who have time to devote to them, it would undoubtedly pay better, financially, to follow out the modern plans as outlined in the bee-literature of the day.

Last season I tried a few tall sections with fence separators and am rather inclined to be pleased with them, although my experience was too limited to form a very correct opinion. Am convinced, though, that it will pay no one to go to the expense of changing their present outfit for plain sections and fence separators who depend on local markets in small towns for their surplus sales, for the reason that the trade will not pay a fancy price for a fancy article, but prefer a grade that they can sell cheap; at least that has been my experience. Most honey producers, I judge, have the most trouble in disposing of their off grades, but it is different here, as the cheap honey goes the more readily. I naturally, therefore, try to sell the better grades first. The best price here for fancy clover in 3⅝x5 plain sections was 14c., same in store trade at that; off grades bring 9c. to 10c.

I want to say a few words in regard to the advisability of keeping bees in a building. You need no hive-covers, which is a considerable saving, and then you can work with the bees any time, regardless of the weather. They also take up less room than where they are outdoors, which is a point of some moment if you are located in town. Hives will last almost indefinitely when protected this way; and the protection afforded to the bees from the elements is considerable. Have kept bees both ways and would not think of going back to the open-yard plan. If the building is planned right, you have all tools and appliances right at your hand to work with instead of being obliged to hunt around for what you need. There are other points of advantage which the use of a bee-house will give to those who once try it.

Tidioute, Pa., Jan. 25, 1900.

NOTES FROM THE KEYSTONE STATE.

BY M. F. REEVE.

PENNSYLVANIA BEE-KEEPERS' ASSOC'N.

THE Philadelphia Bee-keepers' Association, which claims to be the oldest organization of the kind in the United States, does not care to lose its individuality by becoming the nucleus for a proposed Pennsylvania State Association. As a matter of fact, its membership is not restricted to Philadelphia but includes Camden, Merchantville, Palmyra, Collingswood and other New Jersey towns, and Montgomery and Delaware Counties in Pennsylvania. Mrs. E. S. Starr, who is working actively in the matter, has been made chairman of a committee, appointed at a bee-keeper's meeting, to obtain copies of the charters and other data of State Associaations of New York and elsewhere. A considerable membership is already promised. The need of a Pennsylvania State Association, it is claimed, is becoming more and more apparent as a protective measure.

ABOUT MOTHS AND MOTH WORMS.

Have any of the readers of THE AMERICAN BEE-KEEPER ever heard that "lump indigo" is a preventive of bee-moth? I never did, until a stranger in the vicinity came over to my place to inquire about queens, and imparted the wonderful secret.

"I'll tell you something that nobody knows anything about except myself: If you want to keep away the bee-moth," he said mysteriously, "just leave a lump of indigo inside on the bottom-board of the hive, and I guarantee you will never have any trouble with the worms or millers."

I told my informant I had never come across this before in any bee-journal or heard of it, but that I was aware that indigo coloring in sugar syrup was considered dangerous to the brood. He assured me that it was not injurious in lump form except to the moth and its larvæ.

Talking about moth-worms, reminds me that last spring I received a lot of empty brood-combs from a Maryland party, which were utilized when the season began, except one hiveful that were overlooked and left in the house loft. When they were examined, late in July, they were literally a mass of moth-worms and cocoons. The larvæ had even got into the joints of the floor and gone into the chrysalis state. When I got through killing millers and picking out cocoons from the corners of frames and the floor, there was a double handful. These all went into the fire.

The hive, filled with the frames, was placed on top of a strong colony and the bees soon cleared out the galleries made by the worms and smoothed everything up. There the combs remained as the best place for them.

A PECULIAR EXPERIENCE IN WINTERING.

I don't suppose the experience was peculiar to myself, but the bees certainly played queer pranks with the winter covering, last spring. Last fall, in making things snug for the winter, I made loose burlap bottoms, which were tacked around the inside edge of the deep Falconer supers, leaving a sort of bagging projection beneath. The supers were then filled with dry beech leaves and placed on top of the Hill's devices over the colonies and, after fastening the supers securely to the bodies, the bees were left alone for the winter. It was late in the spring before

I had an opportunity to look over things and take off the winter coverings. Well, if the industrious tenants hadn't taken and propolized the Hill's device fast to the burlap bottoms of the supers and built bridge-combs in several hives, reaching from the tops of the frames up to the under sides of the wooden cross-pieces of the Hill frames! Did I throw these bridge combs away or melt them up, after cutting them from the frames? Not much! I uncapped and placed them on dinner plates and gave them to the colonies that made them. After the bees had cleaned out the honey, I saved the empty pieces of comb and fastened them into sections with melted wax. I used them for starters. The wax was as white as snow and they were all right for that. This may not be according to Gunter, but that's no matter.

Rutlege, Pa., Aug. 8, 1900.

* * *

UNITING BEES.

Also Valuable Suggestions Concerning Cellar Wintering, Temperature, Arrangements etc.

BY G. M. DOOLITTLE.

A CORRESPONDENT writes,saying: "I have some weak colonies of bees which, I fear, will not winter as they are. How would it do to unite two of these weak colonies together? Please tell us about this in The American Bee-keeper."

This is the proper thing to do, and the time to do it is the latter part of September or the first of October; but if you are on the lookout for a warm day it may be done even in November, though it is not best to wait as late as that, as a rule. Two weak colonies kept separate will consume nearly twice the stores which both would united, and very likely perish before spring, while, if put together, they would winter as well as any good colony. To unite such colonies late in the season, the following is a good plan: If one of the queens is known to be inferior to the other, hunt out the inferior one and kill her, so that the best queen may survive; otherwise you need pay no attention to the queens for one of them will soon be killed after uniting.

Having the queen matter disposed of, go to the colonies you wish to unite and blow smoke quite freely in at the entrance, pounding on top of the hive at the same time with the doubled-up fist or with a stick of wood with a cloth wound around it so it will not mar the hive or make too sharp a noise rather than a heavy jar. When both have been treated in this way, wait four or five minutes for the bees to fill themselves with honey, when one is to be put on a wheelbarrow and wheeled to where the other stands, and both opened. Now select out the combs from both hives which contain the most honey, setting them in one hive. In thus setting in it is always best to alternate the frames, whereby the bees are so mixed up, as well as being full of honey, that they have no desire to fight, for each bee touched by another is a stranger, filled with honey. Then, their being full of honey makes them so they are not inclined to take wing and fly back to their old home under our manipulation. After the hive is filled, arrange the quilt or honey-board and put on the cover. Next put a wide board down in front of the hive,leading up to the entrance, and proceed to shake the bees off the remaining frames, taking first a frame from one hive and then one from the other, thus mixing the bees as before. After all are in set the wide board up against the front of the hive, sloping over the entrance so that the next time the bees fly they will bump against it, so to speak, thus causing them to mark their location anew, so that none will return to their old location and get lost. Also remove all relics of the old hive, so that there is no home-like appearance about the old loca tion to entice them back

Put the remaining combs away in some safe place for the next season's use, and the work is done.

CELLAR WINTERING.

Another correspondent writes, saying: "I desire to try cellar wintering with my bees the coming winter, as I have not been very successful in wintering out on the summer stands. Will it do to put the bees in a cellar where persons are going in after vegetables every day? And how is it best to arrange the bees in the cellar?"

A cellar which will keep vegetables will answer very well for the bees, and the going into it every day need not disturb the wintering bees, if the persons entering are cautious about jarring them, or needlessly disturbing the hives in any way; especially if the bees are placed so that the light from the lamp cannot shine direct into the entrance to the hives. If the cellar is kept dark during the winter all that is necessary to do is to turn the entrance of the hives toward the cellar wall; but if the cellar is light, a place in one corner should be partitioned off so as to make the part which is to contain the bees dark. Bees have been wintered well in cellars where the light of day was allowed to enter; but, as a rule, bees winter best in a cellar into which no light of the sun ever enters while they are in it. The hives should also be ten to fifteen inches from the cellar floor, the bench or platform on which they stand resting on the ground instead of being nailed to the sleepers above, otherwise the jar caused by any movement on the floor above would disturb the bees and tend to make them uneasy, thus causing more or less loss. Rats and mice should also be excluded from the cellar where bees are to be wintered; for of the two, I would rather chance the jar from children playing over bees than of rats and mice running about and through the hives. Many colonies of bees are lost each year from rats and mice in cellars during the winter. The full entrance to the hives should be given where fast bottom boards are used, and with movable bottom boards, the same should be left on the summer stands and the hives raised two or more inches above the bench or hives on which they rest. Where honey-boards are used, I prefer to remove them, substituting several thicknesses of old carpet, or else a chaff or sawdust cushion two or three inches thick, through which the moisture from the respiration of the bees may escape; but still keep them dry and warm.

The bees should be set in, about the middle of November and taken out about the time the elm and soft maple blossoms, or when the first pollen in the spring is brought in. Some recommend setting in later and taking out earlier; but my experience has been that the sudden changes, both in the late fall and early spring, are very damaging to bees, whether wintered in the cellar or out of doors, and it is best to avoid them where we can as well as not, as is the case in cellar wintering.

The right temperature of a cellar to winter bees best is from 42 to 45 degrees, but if fixed as above given, they will do very well as low as 35 to 40 degrees. If the cellar is one where the temperature goes as low as the freezing point and stays there any length of time, I should prefer to leave the bees on their summer stands, for a continued temperature at about the freezing point or a little below, seems to be very injurious to bees.

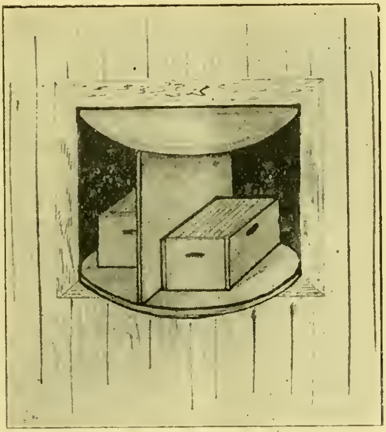
Borodino, N.Y.

* * *

ANOTHER "HILL'S DEVICE."

Any device which will facilitate the reception of honey and the discharge of empty combs to and from the extracting room without admitting an annoying number of bees, will be of interest to the producer of extracted honey. The length of time that is necessary to carry or wheel the honey inside, and receive the combs, is ample to admit, through the open doors enough of buzzing robbers to make things decidedly unpleasant during the latter part of the day.

We present herewith a crude sketch of a device calculated to expedite the exchange of combs of honey for empty combs; and that without letting in a lot of bees. For the idea we are indebted to Mr. L. G. Hill, of Buffalo, N.Y., who has grown from childhood to old age in the study and practice of bee-keeping. Though we have not tested the arrangement practically, we have no doubt that it will serve the purpose for which it is designed.


HILL'S TURN-TABLE.

It is constructed of two circular pieces of one-inch stuff, substantially cleated to give the necessary rigidity, of the same diameter as the aperture in the outside wall of the building, cut at a convenient place and height. Another firmly cleated piece, after the plan of a plain door, and of the same size as the opening in the wall, is securely fixed between the circular pieces, which have a journal centrally placed at either end to hold it in an upright position, and upon which it will readily revolve. Eight brackets or braces placed at the outer edges of the upright piece, and securely bolted, top and bottom give additional strength as do also two narrow uprights placed between the outer edges of the circular pieces, although these are not shown in the drawing. A cleat is fastened on the upper side of the lower shelves (which they virtually are) to prevent a too-early application of centrifugal power in the extracting room. A stop is placed upon each side of the aperture—one on the inside and one upon the outside, against which the swinging door comes in contact when closed.

If no bees are about to trouble, the door may be placed transversely and the honey and combs passed through. If "robbers" are numerous, the hive or box containing the honey is placed upon the outer shelf, a few whiffs of smoke applied to scatter them, one impelling motion of the right hand and the honey is on the inside, the combs are on the outside shelf and the door is closed, bee-tight.

If any of our readers should carry the idea into effect, we should greatly appreciate a report of its workings.

CHARACTERISTICS

of Different Races of Bees—A Reply to Mr. Doolittle.

BY F. GREINER.

THE different races of bees, as we know them today, are probably the result of the prevailing conditions in the different countries where these bees originated. It would be a useless speculation to try and estimate the time it may have taken before the bees adapted themselves to their surroundings, but when that happened they became a fixed race.

Constant irritation by wasps and ants and other enemies has resulted in making the Cyprian bee an irritable, most vicious bee; the opposite condition made the Carniolan bee a very gentle one, etc.

The mixing up of already established races of bees may have entered as a factor into the make-up of certain other races as now known.

Of all the different races and varieties of *apis mellifica* the American bee-keepers seem to prefer the following three: Italian, Black and Carniolan. Indeed, any of these are very good bees to keep; one race may suit one, another may suit another better. To compare these different bees with one another from the standpoint of the honey-producer is my object in writing this article, although I do not expect to exhaust the subject.

As to their beauty, our bees are more or less attractive, and I should classify them like this: The Italians stand first, the Carniolan second, the Blacks last. There seems to be a slight variation among the Italians, some being more yellow than others; some have white hairs. The latter are called Albinos, the former Golden Italians. Among the black bees, it is said, is a sub-variety called the large brown bee. I have never been able to find them, and I question the existence of such in America. The Carniolan bee is really only a variety of the black bee, a sort of Albino black; but we will consider it here as a race.

Naming our three races of bees in their proper order according to their gentleness, the list would be, first, Carniolan; second, Italian; third, Blacks. According to their prolificness the order is: first, Carniolan; second, blacks; third Italian. Some apiarists may take exception to my classifying our bees thus; for this reason I want to say that an Italian queen may be induced to lay just as many eggs in a given time as a Carniolan queen, by manipulating the brood-combs; but if left undisturbed, the Italian bees will fill their brood-nest with honey to such an extent as to prevent the rearing of an excess of brood. This peculiar feature of the Italian bees is probably the reason why they do not enter the section cases as readily as the Blacks and the Carniolans, and it is quite evident that they need different treatment than the latter in order to do their best. The prudent apiarist understands this matter, and I would not for a moment on this account hesitate to generally adopt the Italian bee.

There being a difference in the prolificness of the different races, has in its sequence a difference of their disposition to swarm. The Carniolans, as being the most prolific, will send out the most swarms; the Italians, as the least prolific, will swarm the least; although the difference between the Italians and the Blacks in this respect is not so pronounced as between the Blacks and Carniolans.

I will now name two points wherein the Italians excel the other two races. First, they generally store much more pollen in their combs; second, they are apt to gather more propolis, both being undesirable properties, considered from the comb-honey producer's standpoint.

Next, let us compare the different bees as to the manner in which they cap or seal their box-honey. The Carniolans stand at the head of the list, almost equalled by the Blacks. They have a way of closing up each cell by leaving a small air-space between the honey and the capping. The Italians are more economical; they fill each cell brim full and the cover or capping rests immediately on the honey. This has an effect similar to that produced by laying a white paper on a dish full of oil, making the otherwise white wax appear dark. All the difference seems to be in the appearance of things; unless, perhaps, a little more wax is used by the Carniolans and Blacks in sealing up. We wish our comb-honey to present the best possible appearance, and so the slight difference means quite a little to the bee-keeper. It means dollars and cents. It is true there is a slight difference between individual colonies, even of the same race; some will cap whiter than others; but the Italians fall away behind, sometimes showing very unsightly combs, although the honey itself may be just as fine or even finer. In fact, for my own use I prefer it, as it contains less wax. There may be a strain of Italians which produce as fine looking honey as the other races of bees, but so far I have not yet found and tested any, and I am not fully satisfied that they exist. I would have had occasion to again test at least one strain of Italians of this so-called "superior stock" in the matter of fine work "capping comb-honey" this season, had we only had a honey-flow. I hope to have the opportunity another season. I would also be very glad to pay friend Doolittle his price for an 1899 tested queen; but he is in the same boat I am in—has had no honey, and cannot tell for certain whether or not the bees from these queens actually do that work. He can only say they are from his tested "comb-honey strain." But that does not satisfy me; at least I do not feel justified in paying a high price. I hope friend Doolittle will not draw the inference from what I have said that I was doubting his sincerity when he says his "strain of Italian bees will cap their honey as white as the blacks." But may it not be possible that he has forgotten how nicely the black bees do their work? It is well to refresh our memories from time to time with the facts. I further hope friend Doolittle will take into consideration how much misrepresentation is practiced by advertisers upon an unsuspecting public, which has made many shy to believe all they read. I honestly believe friend Doolittle does not belong to this class of fraudulent advertisers, yet, he will suffer with the unjust in a measure. I do not know that any other queen-breeder has a better reputation than he; and still one of our best honey-producers, a most fair-minded gentleman, said at our convention last winter, in substance: "I wish I could be in Doolittle's yard during the honey season, just to satisfy myself whether really his Italians cap their honey as white as do the blacks." From this Brother Doolittle may see what the prevailing opinion is hereabout. As to any bees making washboard style honey during a time when there occurs an intermission or dull spell between successive honey flows, I have not observed that one race of bees does any better than another. I don't think, if there is a difference, it can be very striking, or I would have noticed it. I should hardly look for any such difference, for I cannot believe that any bee can gather where there is nothing.

The special features which make the Italian bee a favorite with the bee-keepers generally are, 1, their beauty; 2, their manner of clinging to the combs while being handled, making it easy to find queens; 3, their gentleness; 4, their greater vim and determination to keep their combs free from wax moths and protecting their hives better generally. Along all these lines they do excel the other races by a long way.

Naples, N.Y., July 30, 1900.

MEL BONUM APIARY.

OUR frontispiece this month presents the subject of an interesting series of letters, "The Evolution of an Apiary," contributed by the proprietor, Mr. H. L. Jones, Goodna, Queensland, Australia, to the *Australasian Bee-keeper.*

It is interesting to note the progress of our industry around the world; and the case of Mr. Jones corroborates the fact already established that in the hands of the *right man* very limited means and a small start frequently outgrow and surpass the more pretentious business which, though having abundant capital, has not the skill and natural adaptability necessary to success. Mr. Jones' start in bee-keeping consisted of a single colony captured in the woods, in 1880. Owing to limited means the care and increase of his stock was carried on for several years without so much as a smoker, honey-knife or extractor. The season of 1884 brought him a crop of honey averaging over 228 pounds to the hive from his nine stocks, together with an increase to thirty-five colonies. This seemed to mark a new and prosperous era in his career, for a genuine Clark cold-blast smoker and several other useful implements were added to the equipment as well as a quantity of apiarian literature. Hives were made of old gin cases and economy rigidly practiced in every way until the business became self-sustaining, when improved appliances were added and the capacity of the plant increased. To-day Mr. Jones is said to be the most extensive breeder of queen bees in the Southern hemisphere, as well as one of the largest producers of honey; a distinction which his energy and enterprise has well won, and of which he may justly feel proud.

Mr. Jones says in his earlier days in the business, apicultural literature was scarce in Australia, and as a result he was obliged to attend that very expensive school—experience, and adds: "Had I known then as much about the production of honey as I do now, I should certainly have been richer by some thousands of pounds." He further observes that even to-day, with all the low-priced literature upon the subject of bees, many are content to grope along in ignorance without it.

In a letter received some months since from Mr. Jones, he expresses his appreciation of THE AMERICAN BEE-KEEPER in a very complimentary way; for which kindness we take occasion to thank him.

* * *

Our readers are invited to take advantage of our present arrangement which provides that one dollar in cash or one Italian queen of choice stock, goes each month to each of the two persons sending us the most interesting or instructive letter for publication. Fifty cents each for the two next best letters. It is not necessary that you say they are sent in competition for the cash or queens; if the matter is found "available" the premiums will be promptly forwarded with our thanks. tf

THE AMERICAN BEE-KEEPER

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H. E. HILL, - - - - - - EDITOR.

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☞Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER, Falconer, N.Y.

☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Messrs. F. Greiner, M. F. Reeve, C. W. Parker and Fred. Z. Jones get the cash and queens this month.

New subscriptions and renewals received this month, accompanied with fifty cents, will be continued until the expiration of volume XI, —fifteen months.

We have received quite a number of contributions of late, but would be pleased to have a more general response from our amateur readers throughout the country.

Matter for publication should be written upon one side only of the paper. Number the pages and write any business or matter not intended for publication, on a separate sheet.

An exchange says the secret of getting beeswax of a bright yellow color is to "allow it to cool slowly." Our contemporary would increase its prestige with the bee-keeping fraternity by running in a lot of slugs and quads instead of such information (?).

Some dealers as well as some of our contemporary journals continue to express the belief that lower prices will rule later in the season. Some assert that there are indications of a large crop having been harvested. It is the individual opinion of THE BEE-KEEPER that the general crop is small and that better prices will prevail. We see nothing to indicate a decline.

Some of our contributors, to whom premiums were sent, have kindly reminded us of an earlier assurance that they were not writing for money. We appreciate such courtesies, but cannot suspend an established rule of the paper. If our friends have no personal use for the cash, there may be some charitable institution which has.

When acknowledging the receipt of his premium last month, Mr. S. M. Keeler, Chenango Bridge, N.Y., wrote: "Everything is drying up in this section. We had some rain early in July. Very little honey for me this season." Mr. Keeler tells also of a neighboring bee-keeper who, with one hundred colonies, secured no surplus honey either last year or during the past season. This appears to be one of the seasons in which many have to report short crops or entire failures, while no one claims a heavy yield.

Interesting advances have been made in commercial queen-rearing as well as in simplified methods adapted to the needs of the amateur. The plan of removing the queen and allowing the bees to use larvæ of their own selection, and diminutive cells for their development, has not given satisfactory results and may now be counted among the things of the past. We are arranging to publish an illustrated number in the near future to be devoted largely to this subject, giving in detail the latest ideas. Suggestions from our readers will be accepted with gratitude.

Information at hand would indicate that the honey crop generally is short. Some sections have been favored with a fair yield, while many others have given nothing. We give below the concluding paragraph from a private letter from H. G. Quirin, Parkertown, Ohio; and many others report a similar experience: "A single swarm in our locality, at the time when white clover ought to have been at its height, would have *starved* if they had had to depend on what they got from the fields, for a living. As white clover is our main dependence, you can readily understand what it means to have it fail."

NOISY BEES.

Mr. S. M. Kyle, Bethany, Ore.,

writes: "I have one swarm of bees that makes more rumbling, bumbling noise than I have ever heard bees make before—nearly equals a sash and door factory. The noise can be heard thirty or forty yards distant. I have seen seventy-five Januaries, and this beats all the bee-music I ever heard. Please explain the cause in THE AMERICAN BEE-KEEPER."

Such a roaring hum would be emitted only by a very populous colony. Conditions tending to increase the hum are: A brisk flow of honey, intense heat of a noon-day sun, or the sultry, humid air of eventide. This is the first instance to our knowledge wherein a colony of bees has been guilty of disturbing the peace of a community in such a way; but if the noise is objectionable we would suggest as a remedy, additional room within the hive, with some upward ventilation, and shade. The sound, we believe, betokens nothing worse than the possible discomfort of the bees through a lack of shade and ventilation.

A PRIVATE MATTER CONCERNING OTHERS (?).

The present editor of THE AMERICAN BEE-KEEPER has been deeply interested in its success ever since January, 1891, at which time the first number was issued. To have a "bee-journal so near home," when all apicultural literature had formerly emanated from distant parts of the country, was a source of satisfaction which we took pleasure in working to sustain. Its policy of adhering strictly to *bees* in the selection of its subject matter, tended to intensify our desire to see it succeed. Several years of business dealings with the publishers likewise had a tendency to increase our interest in the success of their undertakings. Becoming accidentally acquainted with some of the sly tactics of its opponents to "down" THE BEE-KEEPER and render its publication more difficult and discouraging, acted rather as an incentive to redoubled efforts in its behalf, than otherwise. A like influence was imparted as we have found later, to many other of its friends, who yet stand with us for ultimate success; which, by the way, has already been achieved to a gratifying extent. Thanks to those friends whose progressive minds seek rather to establish the common brotherhood of mankind, with equal rights and privileges to all, than trample into the dust those who are weak, that added strength may be given to the strong. Friends who could not be brought to recognize the benignity (?) of discouraging humble efforts for the common weal to promote individual gain.

THE BEE-KEEPER will soon enter upon its eleventh year of publication. Its steadily increasing list of subscribers and the hundreds of commendatory letters received are encouraging—very encouraging. A contemporary "bee-editor" recently wrote in a private letter: "I now find THE BEE-KEEPER equal to the best." Surely, that is kind as well as encouraging; but if it is now equal to the best, it is necessary only that those who have allowed their subscription accounts to run behind, pay up, and a year in advance, and THE BEE-KEEPER will become *the best.*

In looking over the subscription list we find many names which it was our pleasure in former years to secure and forward with the necessary amount to place them there. A number of these are now delinquent. The publication of any periodical is attended with no in-considerable expense. THE BEE-KEEPER already has a list of prompt subscribers sufficient to not only insure its permanency, but to give much encouragement for the future; yet we desire that every one on the list shall pay up and stay with us. However, if a subscriber is not sufficiently interested in the paper to remit fifty cents once a year, his interest will hardly justify the publishers in continuing to send the paper month after month. In making arrangements for the future, then, we will greatly appreciate it if those whose paper is received in a red wrapper will promptly settle arrearages and either renew or request their paper discontinued. If it is not convenient to pay at once, kindly write the publishers, so stating. They have no way of knowing who are those desiring the paper continued and those who take no interest in it, except as they are informed by the subscribers themselves. The publishers have no inclination to send the paper to any person not interested therein; nor, in fact, to any person not sufficiently interested to pay the subscription price. We desire to inaugurate some additional improvements in the near future, and to begin the new year with a revised list, embracing only those who believe THE BEE-KEEPER at fifty cents a year to be a profitable investment. If any of our present readers do not belong to this class, we would say to such. Please acquaint us with the fact—writing direct to the publication office—and your name will be cancelled, with regret, and thanks for past favors.

It is desired that as many subscriptions as possible shall begin and terminate with the calendar year. To this end we offer to continue all yearly subscriptions received from this date until January 1, 1901, without extra charge, to December 31, 1901. Thus, all who pay up and renew this month, or those who subscribe at once, will receive THE BEE-KEEPER fifteen months for fifty cents.

MOVING A COLONY—INTRODUCING A QUEEN.

A beginner asks the following questions:

1. "What is the best method of moving a colony of bees about fifty yards? It is not convenient to move it inch by inch, as is recommended, for several reasons."

The "inch by inch" method is rather tedious, even where there are no obstructions to interfere with its practice, in moving a distance of fifty yards. Where but one or two colonies are to moved, we know of no better plan than this: Set all frames containing unsealed brood, queen and nearly all the bees into another hive-body and place it upon the stand where it is desired to have it remain; leaving but a few frames of comb with honey and sealed brood upon the old stand. In the evening of the second day carefully transfer the old hive also to the new location and, having its bottom board removed, set it upon the hive first removed. If a board or other object is set against the front of the hive, causing the bees to note their new location upon first starting out in the morning, but few bees will be lost.

2. "To introduce a queen from another colony in the same yard, is it necessary to have an introducing cage and candy, as with a queen received by mail?"

If the queenless colony has no unsealed brood, perhaps the simplest method is to set the frame upon which the queen is, with adhering bees, as well as two or three other frames from her colony—bees and all—in one side of the hive to which the queen is to be given. Place a "dummy" or division board between; leave it for two or three days, when it may be removed and a frame placed in its stead. This plan will usually succeed providing the queenless colony has no queen-cells or unsealed brood.

Another simple plan for ordinary cases, when some honey is coming in from the fields, is as follows: Provided with a light hiving box, smoker and the queen to be introduced, proceed to the hive selected for her reception. Remove the old queen and cause the bees to gorge themselves with honey by rapping on the hive and gently smoking the entrance. Now re-open the hive and shake the bees from all the frames into the hiving-box. Cover the hive, and jostle the bees about a little in the box, finally dumping them upon the alighting-board exactly as you would do if hiving a swarm. As the bees pass into the hive, if the new queen is released among and permitted to enter with them, the colony will have been re-queened without its apparent knowledge, and much less labor is involved than in practicing the more complex methods usually pursued when a very valuable queen is to be given.

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Harry Lathrop formerly regarded its important that a bee-space be provided over the frames for wintering. He uses the dovetailed hive, and his combs have no passage-ways through them; yet, by cutting pieces of carpet to fit inside, resting directly upon the frames, he has found that the bee-space is not necessary, as those thus covered built up very rapidly and are among the strongest of his stock. While the item purports to reveal something new in "wintering," the carpet-quilts were placed on the hives in the spring. *Gleanings* pleads for further experiment before accepting the results as conclusive.

LITERARY NOTES.

"THE AMERICAN BOY" FOR AUGUST.

The American Boy for August is full of matter fascinating to boys, containing as it does a railroad story, a farm story, a roller coaster story, a "boy soldier" story, the sixth chapter of "The Cruise of the Yacht Gazelle," a boat manned by four boys, who took a six-thousand-mile trip in a boat of their own construction; the third chapter of "A Boy Pusher;" an illustrated account of the little son of Edison, the great inventor; a chapter on "The Boy Traveler," who had remarkable experiences in traveling through Europe on foot; an account of a six-year-old grower of cacti; a letter from the Paris Exposition, written by a boy reporter; two pages devoted to "What Boys are Doing;" an account of a novel newspaper published by boys; a page of science for boys; an account of how a New Jersey boy earned money with a printing press; accounts of Amateur Journalism Conventions; a page on "The Boy Photographer;" a page devoted to the Belgian hare; one on "Boys in Games and Sport," telling how to make and fly kites and build play-houses; several pages devoted to "The Boy Stamp and Coin Collector;" with space devoted to "The Boy Naturalist" and Scores of items in addition of interest to boys. The paper is inspiring and entertaining even for grown persons, and meets the boys' wants exactly. Over one hundred illustrations. $1.00 a year. Sprague Publishing Company, Publishers, Detroit, Mich.

A MODERN MAGAZINE.

With the new volume and under a new title, Modern Culture Magazine begins a new career. Self Culture Magazine was limited by its title and by the aims of its former management to the needs of a special class. With broader aims and a broader title the new owners bespeak for Modern Culture a broader patronage and a broader field of usefulness.

Subscription price only $1.00 per year; four months' trial, 25 cents. Published by Modern Culture Magazine Co., 719-720 Caxton Bldg., Cleveland, Ohio.

A SLIGHT DIFFERENCE.

The attention of the Person in the Quiet Corner was recently arrested and charmed by a taking title in a certain popular periodical's table of contents, "Great Writers by Great Writers. Matthew Arnold by Samuel Johnson." Had Mr. Lang or John Kendrick Bangs received a letter giving a dead author's confidential opinion about an associate member of the same society? How interesting would be the opinion of the great lexicographer, expressed in eighteenth-century diction on the great critic of the nineteenth! Disappointment waited upon the turning of the leaves. Some one had blundered. The article proved to be an extract from Dr. Johnson's estemate of Matthew Prior, and the Person has several times wondered how the editor and proof-reader adjusted their little difference. How do things like this happen? Is there a quality of intelligence in the types themselves, not unlike a certain exasperating human order, by virtue of which they said, in effect, when the word Matthew was given them, "Oh, yes,—Arnold, of course."—From Modern Culture Magazine for September.

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The American Bee Journal says: "An experimental station has been established by W. Skarytka, in Schletz, Austria, where any one can send bees, hives, etc. for trial and comparison without charge for such trial, providing all are sent prepaid. Here's a chance for several would-be American inventors to have their ideas tested."

OUR EXTRACTOR

Pertinent Paragraphs, Paraphrased and Quoted, with Comment.

From Gleanings in Bee-culture.

The following paragraph from the pen of that terse and practical writer. John H. Martin, presents a solution of a little difficulty not infrequently encountered in the apiary, which may prove of value. "From recent issues of *Gleanings* I note that not a few bee-keepers, and notably Dr. Miller, page 425, have much trouble in finding the queen. A good share of this trouble is from lack of concentration of attention. The greater portion of bee-keepers while hunting for the queen, scatter their thoughts. For instance, if an unusually nice yellow drone crosses the vision, the bee-keeper exclaims, 'My! isn't he a beauty? Wish I could get a queen mated to him.' Then, with drone in the eye, more drones are seen. Then a bee loaded with pollen will divert the eye, or a sunken cell-cap. 'Wonder if that is foul-brood;' and with this thought in mind the queen might pass directly over the spot and not be noticed. A person looking for the queen should look for her and nothing else. Everything but the queen must be a blank. A good aid to concentration upon this object is to keep repeating in the mind, *queen*, *queen*, and mentally hold her picture steadily in the mind. With the other precautions for having good eyes and not too much disturbance, the queen will be found with little trouble."

"Three years ago I extracted about 2000 pounds of nearly pure dandelion honey before white clover commenced to yield," says C. Davenport in *Am. Bee Journal*. He says the honey is dark, rank-tasting, fit only for brood-rearing or to sell for manufacturing purposes. (Doolittle says it is splendid when a year or two old.) Formerly dandelion bloom was about gone soon after fruit bloom, but it has increased so much that now there is too much of it, and the honey is sometimes mixed with that of white clover. About Merango it has increased to such an extent that it blooms till fall frosts; but I doubt whether bees work on it much, late in the season. — DR. C. C. MILLER.

A. Norton discusses the question of shade for hives from a scientific standpoint, directing attention to the fact that when a hive is surrounded by a cooler atmosphere, even though the ventilating currents remain unchanged, the rate of evaporation must necessarily be decreased in proportion to the lower temperature; and that a decreased ventilating current, with unchanged temperature would yield a like result. While he thinks the matter one regarding which there should be no conjecture, and suggests that "some system of experiments be tried to establish a delimiting point of average temperature, warmer than which shade is beneficial and cooler than which it is undesirable."

This from our own well-known correspondent, Mr. F. Greiner, from the bee-keepers' point of view, is not an unpleasant observation: "The fruit growers of the present day are becoming more and more convinced of the importance of the part the honey-bee plays in the pollination and cross-pollination of the blossoms of our common cultivated fruits, and that to such an extent that already many orchardists have either themselves engaged in bee-culture or have induced bee-keepers to establish apiaries in their localities."

As against the majority of bee-keepers we have for several years practiced and written in favor of stimulative feeding, when done with care and discretion. We agree with Mr. W. O. Victor, who keeps a number of large apiaries in Texas, when he says: "In this locality I have found it best to feed a little for two or three days about six or seven weeks before we expect our first honey-flow, which, with me, is about April 5th to 15th, so you see from the 15th to the 25th of February will be the proper time. This will start brood-rearing with a rush; but when the feeding is stopped the queen will most likely cease laying to a considerable extent."

Dr. Miller gives in detail the results of a series of experiments and observations conducted by himself, last year, relating to the development of queens from the freshly-laid egg to the natural insect, that are interesting and instructive. The Doctor opens by giving a quotation from T. W. Cowan's *British Bee-keepers' Guide Book*, as follows:

1. Time of incubation of egg....	3	days.
2. Time of feeding the larvæ, ...	5	"
2. Spinning cocoon by larvæ, ...	1	"
4. Period of rest, ...	2	"
5. Transformation of larvæ into nymphs, ...	1	"
6. Time in nymph state, ...	3	"
Total, ...	15	days.

These experiments, while not according strictly to Mr. Cowan's table, are so slightly at variance that it is thought the difference in time would result from varying conditions of strength of the colonies employed, and tend to show that while it may not always be safe to leave cells uncared for the full sixteen days, the usually accepted time for development, they may not hatch until the seventeenth day, or even longer. It was further shown that the bees, when left to their own selecting of eggs from which to rear queens, appear especially ambitious to construct cells after the proper age limit has passed, thereby using larvæ that are too old for the production of queens that would be approved by the scientific queen-breeder of to-day. It is not yet known, however, that this disposition is general, though apparent in the case observed by Dr. Miller.

J. W. Jackson says in his section of Louisiana they have three swarming seasons each year—spring, summer and fall. The spring and fall swarms, he says, almost always cluster about the premises while the summer issues very frequently abscond without clustering. It is not very unusual for us to have two swarming seasons during the year in South Florida.

Mr. Mediseth sends from Arkansas some beetles to Prof. Cook, which, he says, are very bad on his bees—eating both combs and honey. The Professor says it is something new, (that is, the habit is new to him) although it is a near relative of an old acquaintance which has the habit of burrowing into ripe fruit, such as peaches, pears and apples; thus giving evidence of its taste for good, sweet things.

Abbott Clemens dampens one-piece sections by hanging up a tin can, having it filled with water and a hole punched in the bottom, from which the stream is allowed to pass over the V cuts of about forty sections held in the hand.

Editor Root, after a prejudice of long standing against the Globe bee-veil, now regards it with great favor as a head protector.

From The Progressive Bee-keeper.

Mr. F. L. Thompson, than whom we have no more forcible and practical writer on apiarian matters, now contributes quite regularly to the columns of this journal. He never minces matters, nor has been accused of holding a membership in the "Mutual Admiration Society." This year Mr. Thompson is running three apiaries, situated from six to eighteen miles apart, which are several hundred miles from his former location in Colorado; and he is impressed with the important bearing which the oft-mooted question of "locality" has on some bee-keeping matters. This is to be observed particularly in the relative difference in the color and quantity of propolis gathered, by which the cappings of the comb-honey is affected correspondingly. He gives in detail the workings of an arrangement for moistening sections, devised by H. Rauchfuss: A very small lead-pipe, with the end drawn to a point, and having a very small opening for the water to escape, is attached to the faucet in a five-gallon can placed at some height. The water comes with such force as to go with a shot down into the grooves of the sections, which are placed upon edge. Mr. Thompson thinks a five-foot rubber tube used on the siphon principle would be better adapted to the general requirements and would do the work as well. He has used twenty-five pounds of Weed foundation, which was just enough to fill 2,950 sections—and found it to be "very brittle stuff." He says that at a temperature at which other foundations would cut all right, this will crumble and waste, while, if sufficiently heated to cut well, the sheets stick.

J. B. Dodds has discovered a method of moving bees a short distance without loss of working force. He starts to move at dark; puffs a little smoke in the entrance and takes the hive to the new location. Before the bees fly in the morning, disfigures the old location as much as possible. As soon as the bees begin to stir he gives the hives a good shaking up, thereby giving the bees the impression that they have been moved a long distance. When treated thus, he says, "Not a bee went back to the old location."

Instead of moving the extractor to out-apiaries and hauling the honey home in barrels or cans, R. C. Aikin hauls home the full combs of honey and extracts them at home, where he has everything fixed for the work, substantial and handy. We have for several years practiced the same method and have done so exclusively this season, with satisfactory results, the only difference being that in our case a boat is employed while Mr. Aikin uses a team. Mr. Aikin uses a pan of hot water in which his uncapping knife is occasionally dipped, and kept when not in use, while extracting. Mr. Doolittle thinks this is unnecessary where the Bingham knife is used. Ordinarily we think it is as Mr. Doolittle says; but in handling very thick honey, such as we sometimes do in the South, a frequent bath of hot, or even cold, water greatly facilitates the work with a Bingham knife.

From The American Bee Journal.

Mr. Doolittle has tried enameled cloth for winter covering, and in no case where it was used did the bees come out in so good a condition as those over which an absorbent was used. Here is a "little kink," by the same writer, which will be interesting to those who rear queens by the Doolittle method: "Take off one or two of the cell-cups a half day before the bees would seal up the larvæ in them, and if you should not wish to use the royal jelly they contain, within a few days to two weeks, take out the larvæ, stir the jelly up as you did the first, when you will hold the mouth of the cell near a lamp or a stove till the wax at the end becomes soft, when you will wet the thumb and forefinger and press the end down tight, thus sealing it up tight as if in a glass can. In this way the jelly can be preserved for some little time, but after two or three weeks it will dry down and change so it is not acceptable to the bees.

"Robbers in the Apiary—What About Them?" is a subject discussed in an article of over 1500 words, by C. Davenport, which he devotes chiefly to telling of the fear of robber bees which haunted his earlier bee-keeping days, and to how he has found, later, that there was really nothing to fear. While he does not advise others to do as he does, he explains at length his own dangerous methods of working, by opening hives and scattering honey about carelessly when no honey is coming in from the field. His only trouble with robbers has been when setting colonies out of the cellar in the spring; then, if not all set out at the same time, those first out have pounced upon those following later. This, he says, may be easily avoided by smoking in the entrance of the first got out.

The editor thinks we should "be thankful that attention is nowadays so strongly directed to the matter of good queens rather than handsome ones." So say we; and let the attention continue until perfection is evolved.

Charles Smail tells how to fasten foundation in sections with a hammer. He first rubs the wood with a piece of beeswax, places the edge of foundation over the waxed part, taps it on with a wet hammer, rubs the edge and the job is done. He says, "With a little practice you can fold and fasten foundation in more sections than in any other way, and do it right." We have not the honor of this contributor's acquaintance, but it is evident that he does not produce comb-honey for a living.

In response to the inquiry of a correspondent, Prof. Cook says the olive is a nectar-yielding tree; and that all showy and fragrant flowers bear nectar. Concluding, he reminds us that, "In planting orchards, the fruit-growers should mix varieties, and not plant in solid blocks. As most fruit trees require cross-pollination, and as the honey-bee is the great agent in this work, every orchardist should see to it that there is a goodly number of colonies of bees near his orchard."

John R. Schmidt speaks in the highest terms of yellow sweet clover as a honey plant, and says: "Every one should introduce this clover in his neighborhood, if it is not already there, and he will have a plant that never fails (as I know of) to yield nectar, and undoubtedly will have the best and most reliable honey-plant in existence." Dutch clover, as a honey-plant, did not prove a success with him.

Mr. Doolittle contributes an excellent article on the question of Robbing Among Bees. He suggests that "the first thing to be done by way of preventing robbing is to take every precaution against the possibility of robbing occurring," and says, "Right here is where the beginner is the most likely to err."

From The Canadian Bee Journal.

The editor says the poor-price difficulty originated not with the bee-keepers who depend upon the business for a livelihood, but with those who make it a side-line and who retail their little in the local market at whatever price they can get for it. He admonishes producers to keep up quality, not only in talking "honey," but in practice, and to act in unity through their local association, in maintaining better prices for the crop now coming in.

D. W. Heise's bees were confined during the past winter four and a half months without a cleansing flight, and all, with one exception, came through (on the summer stands) in good condition. The one exception was due to starvation, yet this colony had in the hive on October 15th, not less than forty-six pounds of honey, all of which was consumed when examined on April 15th. Mr. Heise therefore regards the thirty pounds, ordinarily accepted as an ample supply for winter, insufficient.

"No colony, especially a young swarm, should ever be allowed to become honey-bound for want of cases to store their honey in. The bee-keeper should watch this carefully during the honey-harvest. Bees, when once they stop working, are, like balky horses, very hard to get started again. If, however, they can be induced to swarm, they will start to work at once with their old-time energy.—A. E. Hoshal.

From The Bee-keepers' Review.

The June number of this artistic and progressive magazine presents a most beautiful photo-engraving of the home of N.E. France, State Inspector of Apiaries for Wisconsin, who interestingly treats the subject, "A Perfect System for Managing Out-apiaries in the Production of Extracted Honey." As tending to profitable building up in the spring, Mr. France prefers a chaff hive and out-door wintering to cellar wintering. His firm, E. France & Son, uses a large, permanent case into which are packed four Langstroth hives, each having a side to itself for an entrance. Their winter losses will not exceed an average of three to five per cent. He does not advise bee-keepers who succeed with a single-walled hive to change for his or other styles of hive. The loss of bees in Wisconsin last winter was 70 per cent.

Mr. J. E. Crane thinks bee-keepers of the nineteenth century have been too busy inventing hives, sections, supers, foundations, smokers, extractors etc., to give merited attention to the subject of improvement of the bees themselves; and says: "It is not certain that the great mass of bees to-day are any better for honey-gathering than in the days of Virgil or Aristotle." He lays particular stress upon the susceptibility of improvement in bees and the neglected opportunities we have had in this direction. "If half the efforts that have been spent in producing a none-swarming hive, had been spent in producing a non-swarming breed of bees," says he, "I believe we should now have been far in advance of our persent position." In response to the editor's inquiry: "Which is the most hopeful field for the expenditure of our thought and labor, as bee-keepers, Mr. Crane says, "Improvement in Stock is the Most Hopeful Field in Commercial Bee-keeping." Improvement of bees in the direction of non-swarming is regarded by E. S. Miles as the most hopeful field. He thinks the disposition of bees to swarm a serious drawback to the comb-honey specialist. He thinks immortal fame awaits the man who will solve the swarming problem in working for comb-honey, without caging the queen or weakening the colony. C. A. Hatch foresees greater posslbilities in the field of co-operative action and association among bee-keepers. His remarks in this connection are so well to the point that we printed them entirely in the August number of THE BEE-KEEPER. S. E. Miller thinks that hives and fixtures have been brought so nearly to perfection that it is but a matter of taste in the selection of those best suited; and nothing, therefore remains to greatly improve. Such problems as wintering, planting for honey, location etc., are relegated, while he devotes his energy to a very readable discussion of bees, and the importance of improvement on that line.

George A. Fenton tells something interesting of decoy hives and his experience with them. Last year fifty-three colonies were caught in this way. He places an eight-frame hive, or a box similar in size, high up in the prongs of a tree, nailing it solidly, and so high from the ground that boys will not be tempted to disturb it. It should be given a shaded location and have fastened inside a piece of old black comb; be clean and be set level. He visits the decoys once a week or oftener. On one occasion he placed six decoys seven miles from home and did not go near them until fall, when he found them all occup'ed with nice swarms. His favorite location is at the edge of a woods.

BUYING and TRANSFERRING BEES.

A Few Pointers Calculated to Aid the Novice.

BY C. W. PARKER.

THE majority of our bee-keepers are persons keeping not to exceed a dozen or two colonies, and usually have some other occupation. This class cannot afford to spend much time or money on their bees, and as a rule do not know much about the intricacies of professional bee-keeping. Ordinarily, the beginner who sets out to buy his first colony of bees, knows about as much of bees as he does of the moon.

The first requisite is that the hive be heavy; that it should weigh from forty to sixty pounds. The next is that it be strong in bees and that they are working good. These two are the principal signs as told from the outside. After lifting the cover, if no ants, moths or other insects (besides the bees) are seen and the combs are in good condition, we may conclude that it is a safe investment.

When the bees have been purchased and are ready to remove, the openings should be closed with screen, and when the bees have ceased to fly, in the evening, they may be taken home. After they are placed upon the stand which they are to occupy, drum the hive soundly with a stick or board. A board may also be placed slantingly against the front of the hive. The bees, alarmed at the unusual commotion, and being compelled to crawl around the board in front will take their bearings as when they take their first flight, and but few will be lost.

All hives in the apiary should be alike, so that parts will be interchangeable. In order to secure this uniformity, some transferring will likely be necessary. The best time for this is in the early summer or late spring, when the hive from which they are to be transferred contains but little honey.

HOW TO TRANSFER.

Just before dark, or early in the morning, place the hive containing frames of foundation (which I will call No. 2) on the stand occupied by No. 1. Remove the cover of No. 2 and the bottom of No. 1 and set No. 1 on top of No. 2. Now close up all openings except the entrance of No. 2, so that the bees will have to pass through the lower hive to fly. All that remains to be done is to wait until the bees begin drawing out the foundation and the queen has started breeding below, when the upper hive is to be removed and the cover placed upon the lower one. Any honey which the original hive may contain, should be reserved for feeding when needed.

Unless the queen is an unusually good one and honey is flowing abundantly, there will be no need of putting on the sections that year.

Glen Falls, N.Y., July 10, 1900.

* * *

Gossip may be friendly and neighborly. I like the word because it conveys a suggestion of good news or good comment; but it is no longer gossip when it ceases to deal with pleasant happenings and loving wishes, and becomes critical or censorious or lapses into slander. The most unworthy talk in the world is that which is carried on in whispers and semi-confidences, and which retails the unfortunate errors of people whom we know. Never to say an unkind thing, never to imply an unfriendly thing even by our silence, are rules which we should make and to which we should scrupulously adhere.—Margaret E. Sangster, in the September Ladies' Home Journal.

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

BOSTON, Aug. 18, 1900.—Receipts up to date have been very, very light, and from present indications in this vicinity, we look for a short crop. Naturally the demand during warm weather is light so that present sales are not large.

We quote fancy white at 15 @ 16c., while something extra fancy would probably bring 17c.; A No. 1, 14 @ 15c.; No. 1, 13 @ 14c.; No. 2, 12c. Demand for extracted honey still very light and prices not firm. We quote white at 7½ @ 8½c.; light amber, 7 @ 8½c. Southern honey supply very light.

BLAKE, SCOTT & LEE.

CHICAGO, Aug. 18, 1900.—We have a fair demand for honey, but the supply is not large. We quote white comb at 14 @ 15c.; extracted—white, at 7 @ 7½; dark, 6 @ 6½c. The demand for beeswax is good at 27 @ 28c,; but the supply is below the normal. The prices on all grades of honey as well as beeswax have an upward tendency.

R. A. BURNETT & CO.

BUFFALO, N.Y., Aug. 17, 1900.—Honey market is somewhat improved. We have a light stock of old honey; but very little new coming in.

Comb honey, fancy, old, 13 @ 14c.; fancy new, 15 @ 16c. Demand for beeswax good the year round; always light supply of fancy. Prices range usually at 28 @ 30c. Would advise very light shipments of new honey, properly packed, shipped by freight only.

BATTERSON & CO.

KANSAS CITY, Mo., Aug. 8, 1900.—Our present demand for honey is good, but the supply is light.

We quote comb-honey at 13½ @ 15c.; extracted 6 @ 8c. Demand for beeswax is very good, with a light supply. Price, 25 @ 35c. Our native honey crop is very light, and we have reports from several sections claiming a short crop.

W. R. CROMWELL PRODUCE CO.
(Successors to C. C. Clemens & Co.)

Mr. J. M. Hobbs, having no natural shrubs or trees near the apiary for the swarms to light upon, has practiced the plan of sticking several low trees in the ground about two rods from the apiary and keeping them green by the occasional addition of twigs, during the season. He has lost only one swarm by absconding, in twenty years.

The second annual picnic of the Cayuga and Seneca County Bee-keepers' Societies will be held at Atwater's Glen on Cayuga Lake, Wednesday, September 5, 1900. An interesting program has been perpared and a good time is expected.

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Fort Pierce, Indian River,
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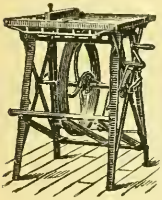

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Every bee-keeper who has had experience with several strains of bees knows that some are far superior to others—that there is scrub stock among bees, just as there are scrub horses, cattle, sheep and poultry. Let me give my own experience. Years ago, while living at Rogersville, I made a specialty of rearing queens for sale. Before engaging in this work I bought Italian queens and Italianized, not only my own bees, but all within three miles of my apiary. In buying those queens I think that I patronized nearly every breeder in the United States; and even in those years of inexperience I was not long in noting the great difference in the different strains of bees. The queens from one particular breeder produced bees that delighted me greatly. They were just plain, dark, three-banded Italians, but as workers I have never seen them equaled. They seemed possessed of a steady, quiet determination that enabled them to lay up surplus ahead of the others. Easier bees to handle I have never seen. It sometimes seemed as though they were too busy attending to their own business to bother with anything else. Their honey was capped with a snowy whiteness rivaling that of the blacks. In addition to these desirable traits must be added that of wintering well; if any bees came through the winter it was the colonies of this strain. They came as near being ideal bees as any I have possessed. All this was twenty years ago; and several times since then I have bought queens of this same breeder, and I have always found this strain of bees possessed of those same good qualities—industry, gentleness and hardiness. In addition to this they cap their honey as the blacks do theirs. I have frequently corresponded with this breeder, and with those who have bought queens of him, and I am thoroughly convinced that he has a strain of bees that are far superior to the general run of stock. If I were starting an apiary for the production of honey, I should unhesitatingly stock it with this strain of bees.

This breeder has always advertised in a modest, quiet sort of way, nothing in proportion to what his stock would have warranted, and I have decided that I can help him, and benefit my readers, at a profit to myself, by advertising these bees in a manner befittingly energetic.

The price of these queens will be $1.50 each. This may seem like a high price, but the man who pays it will make dollars where this breeder and myself make cents; and when you come to read the conditions under which they are sold, it will not seem so high. The queens sent out will all be young queens, just beginning to lay, but, as there are no black bees in the vicinity, it is not likely that any will prove impurely mated. If any queen SHOULD prove impurely mated, another will be sent free of charge. Safe arrival in first-class condition will be guaranteed. Instructions for introducing will be sent to every purchaser, and if these instructions are followed, and the queen is lost, another will be sent free of charge. This is not all; if, at any time within two years, a purchaser, for any reason WHATEVER, is not satisfied with his bargain, he can return the queen, and his money will be refunded, and 50 cents extra sent to pay him for his trouble. It will be seen that the purchaser runs NO RISK WHATEVER. If a queen does not arrive in good condition, another is sent. If he loses her in introducing, another is sent. If she should prove impurely mated, another is sent. If the queen proves a poor layer, or the stock does not come up to the expectations, or there is ANY reason why the bargain is not satisfactory, the queen can be returned and the money will be refunded, and the customer fairly well paid for his trouble. I could not make this last promise if I did not KNOW that the stock is REALLY SUPERIOR.

I said that the price would be $1.50 each. There is only one condition under which a queen will be sold for a less price, and that is in connection with an advance subscription to the REVIEW. Any one sending me $1.00 for the REVIEW for 1900 can have one queen for $1.00; that is, I will send one queen and the REVIEW for 1900 (and 12 back numbers, free) for only $2.00. Of course, this special offer is made for the sake of getting the REVIEW into the hands of those who are unacquainted with its merits. Orders will be strictly in rotation.

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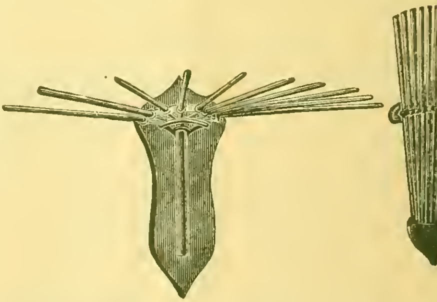

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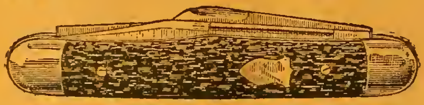

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INTERESTED
BEES AND
HONEY

MURRAY-HEISS. CLEVELAND, O.

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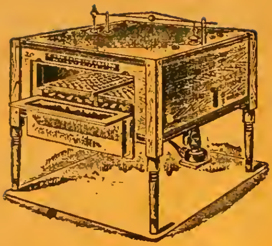

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X | OCTOBER, 1900 | No. 10

THE SEPTEMBER BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

On opening the September number of THE AMERICAN BEE-KEEPER our eyes alight on a scene which at once transports us to the Southern hemisphere, to a place where the people have long summer days when we are enjoying our long, cold winter evenings, and when the sun hangs low down over the Southern horizon at midday, with the mercury often playing about zero. Did I say enjoying the cold evenings? Yes. Among the many pleasant recollections of the past, none are more so than the winter evenings spent around a bright, crackling wood-fire, cracking walnuts, butternuts and hazlenuts, or popping corn, together with the merry laughter of the young men and maidens who had come in to spend a social hour, or I had gone to so spend an hour with them. Then, in later years, what keen enjoyment has come to me in reading the bee-books and papers on these same cold, stormy evenings, with the room kept warm by the base burner stove, throwing out its mellow heat from the consumption of coal therein, while the hanging petroleum-burning lamp, with its almost noon-day light, gave a radiance to the page which was only equalled by the radiance in the heart, as the reading gave rise to new plans and new experiments which were to be used the following summer in connection with the bees. The soul which sees nothing of fun in these things is to be pitied. But I'll not enlarge on these matters further. Thank you, Mr. Editor, for giving us a glimpse of bee-keeping in the Southern hemisphere through this frontispiece.

TO KEEP COMBS FROM MOTHS.

Near the middle of the second column on page 164, Mr. M. F. Reeve tells us how he overlooked a hive of combs until the moth-worms had taken possession of them. Finding them thus, he removed what worms he could handily, when the hive of combs was set over a strong colony for cleansing and protectection. Good! I have had similar experiences myself, but never thought to give it in print. And allow me to say, if a colony of bees will thus clean combs after the larvæ of the wax-moth has gotten possession of them, said colony will fully protect combs, if they have access to them, from worms or enemies of all kinds. For this reason, when I have more combs than I have colonies of bees to profitably use them during the honey-harvest, and these combs are likely to fall a prey to worms, I set apart one, two or three colonies, or as many as are required, said colonies being those which are too weak to work in sections to good advantage, and to these I give such combs, piling one, two, three or four hives of combs top of these colonies, according to the number of combs I have and the strength of the colonies. In this way I have no further anxiety in the matter, going to these hives for combs as I need them or taking them off in the fall in a good state of preservation, ready to be frozen the next winter, thus putting them in shape to keep for a series of years, where so boxed that no moth-miller can have access to them afterward. Of course, the places for combs during the summer months is in a full colony of bees, where they can be utilized for brood and honey; but it sometimes happens, through loss of bees or otherwise, we wish to preserve our combs for a year or two for future use, and Mr. Reeve has told us a good way of doing this.

WHITE COMB FOR STARTERS.

Near the close of his article Mr. Reeve gives us a second hint well worth remembering, when he tells us how he utilizes his white comb for starters in his sections. I have thus used all pieces of white comb for the past thirty years, and consider that this saving alone has been a benefit to me, amounting way up into the hundreds of dollars, if not thousands. The man or woman who throws pieces of white comb into the wax heap instead of putting them into the sections as bait comb or starters, does not fully understand some of the things which go toward making a success in bee-keeping. But to fasten them in, I find a heated iron far preferable to the melted wax plan. Just take a piece of any old steel or iron that is from one-eighth to one-fourth of an inch thick and from two to three inches wide, fastened in some way in a wooden handle, so as to prevent burning the hand. Now heat this iron over a lamp or fire till it will melt wax rapidly, when you will lay the hot iron on the under side of the top piece of the section, the section being bottom side up, and as soon as the piece of comb touches it, quickly draw the iron, letting the comb rest on the wood, the comb immediately becoming a fixture, and so fixed that the bees will not pull or gnaw it off.

"ANOTHER HILL'S DEVICE."

The cut, found on page 167, takes my eye and looks like a good thing. As I have not yet tried it, it would not be the part of wisdom for me to say further than that I hope many of our practical bee-keepers will try it. But there is something which I know is a good thing, and which would be well to always use in connection with this Hill's turn table, and that good thing is a robber cloth. This is simply a piece of common cotton cloth, a little larger each way than the top of the hive, say, projecting three inches all around the top of the hive, with a stick of hard or heavy wood, say three-fourths of an inch square, fastened to two sides of the cloth. Every apiary needs from two to six of these, and at all times when handling hives of combs or honey, one should be thrown over the top as soon as the bees are gotten off from them, this keeping any robber from getting a taste of stolen honey, which will prevent bees from getting on such a robbing rampage, as often happens where they are allowed access to the combs till they are scattered by a few whiffs of smoke at the entrance to the honey-house. Try these robber-cloths, brother and sister bee-keepers, and you will always be thankful for having your attention called to such a simple and easily made implement for the apiary.

GREINER'S ARTICLE.

This is full of meat, as usual; but surely, no one will expect me to point out the good things in it after receiving such a thrashing as he gives me in the latter part of it. So I am going to let the good things alone and notice a point on which I cannot think him otherwise than mistaken; or that he does not qualify his statements as he should. I allude to his statement regarding the prolificness of the Carniolan queens, and in placing them first on the list as to prolificness. They may be the most prolific queens of the races named; but all of my experience with them goes to prove that their prolificness is so used that it counts for less in section honey than any other race of bees with which I am acquainted, unless it be the Syrians. The trouble lies in the fact that the queen does not reach nearly to her height of egg-laying powers till the honey-harvest commences, after which she will spread herself in a most magnificent style. This brings on excessive swarming during the middle or near the close of the honey-harvest, causing nearly all of the honey gathered by the few bees on hand at the beginning of the harvest to be used in the rearing of brood, the bees from which are of little value, as the most of them help with the excessive swarming or become consumers after the honey-harvest is past. All bee-keepers should understand that prolificness in any queen counts for little or nothing unless this prolificness is used at the right time to produce hosts of bees just in the right time for the harvest. And it is because the prolificness of Italian queens can be so used to a better advantage than can the prolificness of any other race or variety that I am wedded to the Italians, and not for their white capping of honey, as the reader of Mr. Greiner's article would be led to think. If I have ever said that my "strain of Italian bees will cap their honey as white as the blacks," I must have been dreaming, for the whiteness is in favor of the blacks. But my Italians *do* cap their honey white enough so that it never has to take *second* place as to *price* in the markets of Boston, New York or Philadelphia. But here I am again with my space used up, with more things marked to be touched upon in the September AMERICAN BEE-KEEPER. At least two more articles could be written on the good things in the September number without exhausting the matter it contains. When I undertook this writing up of the last number, I did not realize what a big job I had on hand. But I know the magnanimous spirit in the readers of THE BEE-KEEPER will lead them to excuse.

Borodino, N.Y., Sept. 15, 1900.

HANDLING THE PRODUCTS OF THE HIVE.

A Few Hints by F. Greiner.

FORTUNATE is he who has comb-honey to market this year. We are having just at present (Aug. 25th) a fair honey-flow from buckwheat, and it seems now that we will not have to feed our bees for winter: but all our hives were so destitute of honey when the flow from buckwheat commenced that nearly all the honey buckwheat can possibly yield will be needed by the bees to keep them through the next winter.

Other friends, even in this State, have harvested a good crop and perhaps are by this time preparing same for the market. I deem it best not to fit and crate very much honey until it gets cooler. September and October are the months well adapted for the work.

For cleaning and scraping the sections of honey I still prefer and use the jack-knife, it has a short, thick, but sharp blade. To do the work, the section is placed on a coarse mesh-wire sieve, which allows all the scrapings to drop through. I often use cheap labor for this work: but to take the filled sections out of their wide frames, section-holders, T supers etc., requires an experienced hand, lest a good many sections would be damaged.

Before emptying a full super it is a good practice to first stand same on end right before you on a work-bench in such a manner that the light will shine into all the spaces. Almost at a glance you will be able to see whether any comb has been attached to the separator. Some colonies have a disagreeable way of doing this. If the super has previously been marked so as to know from which hive it had been taken, it is well to note this condition on the hive-record for future reference and guidance.

I cannot now just recall to mind where I have read of detaching these little brace-combs or legs by means of a thin-bladed knife; it was mentioned in a recent number of some bee-paper. In my hands a short thin-bladed compass-saw has always done the work better than a knife. The saw would cut away without denting the capping: the knife would only crowd through and not infrequently injure the capping, especially when the honey was cold.

The grading of our honey cannot be done by inexperienced help. I find it impracticable to impart my ideas about this matter to any one not an expert.

The crating of the honey is a simple matter after the grading is done, and I need not say much on the subject except that the crating should be done honestly. Even the boxes of one grade vary somewhat. The line cannot be drawn so closely but that some boxes will be a little better than others. I hold that the inner tiers should contain just as good honey as is visible on the face. On this point I might say, only a few days ago I happened to be in the post-office of a neighboring town, where I was not known. I chanced to overhear a conversation between several, as it seemed, prominent business men. One said:

"As a class, there are no other people so dishonest as the farmers," etc., relating then some of his experience in buying apples, the barrels being faced with good, large apples, but were otherwise filled with trash. I felt sorry that such a sentiment should prevail among these people. I ventured to approach them and asked the gentleman to kindly go over to the grocery across the street and empty out a few of the sixty baskets of Burbank plums which I had just delivered there, then come back and tell us what he had found in the bottoms of the baskets. However, he would not go; perhaps I bluffed him off. It seems to me, not saying anything about dishonesty, it is a very poor business policy to face apple barrels, plum baskets or honey crates with a superior article, putting trash into the center. Let us all denounce and guard against such a practice. It does not pay in the long run.

When I first commenced using plain sections I thought it might be necessary to use cheap dividers in the shipping crates, and accordingly I had quite a number of thousands sliced from beech timber; but I have now come to the conclusion that they are not as necessary as it at first seemed. I have given up their use entirely, although I have them and hardly know what use to put them to.

Through the Grape-growers' Association of my town I am often in a position to ship honey in through cars to different and distant markets. It is my experience that honey in small lots carries much safer when put up in large crates of about two hundred pounds. These crates are provided with projecting handles so two men can conveniently carry a crate of this kind. But the projecting handles are sometimes troublesome when it comes to packing baskets of fruit around them. We have changed the construction of the crates in a manner that the handles will drop down out of the way. We now hear no more grumbling of our fruit men, who have sometimes threatened cutting off those handles.

We aim to ship our comb-honey before cold weather sets in.

Naples, N.Y., Aug. 25, 1900.

◆

His Highness, the Bey of Tunis, has conferred on Mr. T. B. Blow, an Englishman, the decoration of the order of *Nichem Iftakar*, with the rank of officer, in recognition of his services as adviser on apiculture to the Tunisian government.—*Gleanings.*

CLIPPING QUEENS.

Wrong and Right Methods of Doing this Work—Editor's Views.

THE difference of opinion among practical bee-keepers regarding the utility of the various styles of hives and implements is readily explained by the diversity of methods employed in the pursuit of the several objects sought. Apparently conflicting ideas of methods frequently result from climatic or other conditions as widely different. Practical men usually have some logical reason for their preferences in these matters; yet, it is not improbable that to most of us is afforded abundant opportunity, through closer study and practice, to very materially advance our interests. This has been amply demonstrated in our own case. Repeated trials, with the exercise of patient observation, have shown that the lack of experience and skill were alone responsible for the unsatisfactory results attending first efforts.

Well may the reader ask, "What has all this to do with our subject?" Only this: The foregoing thoughts are a result of reading in the *Bee-keepers' Review* the following editorial:

> Dr. Miller, A. Norton and the editor of *Gleanings* discuss some of the methods of clipping a queen's wing. I have tried the methods that they mention, and several others besides, and have never found any better way than the one recommended by the editor, viz.: that of simply picking up the queen by the wings, using the thumb and forefinger of the right hand, then transferring her to the left thumb and forefinger, taking hold of her by the thorax. As he explains, the thorax has a hard, chitinous covering, and, with ordinary care, there is no danger of injuring a queen in holding her by this part of her body. While holding her in this manner clip her wing with a pair of scissors. The only trouble is that when the queen feels the scissors she is likely to thrust up a leg, and the careless or nervous operator may cut off a leg as well as a wing. The remedy is not to be nervous or careless. There is no need of haste. Do the work slowly and deliberately. If a leg comes up in the way, wait until it goes down.

Whether one is engaged in the production of comb-honey, extracted honey, queen rearing or rearing bees for sale; whether he operates north or south, east or west; whether he is a bee-keeper for profit or for pleasure only, are matters having no bearing on the methods of clipping a queen's wing. The best method in the hands of one remains always *the best* in the hands of any and all. There may be those who, by long practice, have become more proficient in the use of a faulty method than they would be with one much more simple and efficient with which they were unacquainted. Their failure, however, to have acquired dexterity in the simpler and better method, indicates nothing against the obviously better plan; nor to prove the superiority of a bungling, dangerous way to which they may have been accustomed. We believe there is a right way and one or more wrong ways of doing anything. That is, under stated conditions there is always one method possessing greater merit, or a greater number of advantages than any one of all other methods. This, then, is the "right way" of performing this particular piece of work.

The obvious advantages, under certain methods of handling bees, in having the queen's wings clipped, has led to its extensive practice, and it will doubtless long remain as an established custom with bee-keepers. We therefore believe that if there exists any one method of clipping which is really more simple, expeditious and safe than any other, that method should be advocated.

With due respect to the opinions of such able veterans as Messrs. Hutchinson and Root, we cannot but believe that their public advocacy of so crude and dangerous a method of clipping is due only to the fact that they have failed to give a fair test to a decidedly better way. If the proper method is acquired it is not necessary that the queen's legs are endangered, that she should be rendered liable to being balled as she is after being thus handled. Nor is it necessary that she shall have reason to think she has been seen; much less deprived of a wing. We shall then assume that any one who takes a queen from the comb for the simple purpose of clipping her wing, is employing a faulty method.

EVEN A CHILD CAN DO IT.

The best known method of clipping, which requires but little practice, is as follows:

An ordinary pocket knife is the only tool necessary. It should have a razor edge. If the knife is not *very* sharp some pressure will be necessary in order to sever the wing; but with a very keen edge its own weight is sufficient to accomplish the work instantly, without danger of cutting the finger.

Stand the frame upon which the queen is found, against the side of the hive, or have it otherwise firmly supported in a convenient position. Do not attempt to catch the wing until the queen, of her own accord, assumes an upright position; that is, wait until she stands or walks with head upward, which she will soon do, ordinarily. Now, with the knife in the right hand, and the thumb and index finger of the left lightly pressed together, gently raise the tip of the left wing with point of finger and with a rolling motion, caused by a slight contraction of the thumb and finger, engage the tip of the wing, and at the same instant cut off about three-sixteenths of an inch of the upper wing thus held. This is accomplished by simply giving a slight stroke of the knife across the wing against the finger-tip, without pressure.

It sometimes occurs that the queen carries her wings separately for a moment. While the novice will recognize this as his chance to catch the wing more easily, and hasten to improve the opportunity, the momentary separation is but the result of some excitement, and unless she is standing still, in a very convenient position, it is usually better to allow her to adjust her wings to a natural position before beginning the operation. Should both wings be caught when endeavoring to take but one, the right one may be instantly released by rocking the thumb in the opposite direction.

Should the queen be moving when wing is caught and the operator has not become sufficiently expert to do the clipping instantly, the hand should move steadily as does the queen, so that she shall not pull nor twist the wing.

With a little practice the clipping is accomplished so easily and quickly that the queen gives no apparent sign of knowing that she has been touched at all; in fact, only the tip of the wing has been touched, and at the same instant it has been so cleverly removed that she continues without interruption to look for vacant cells in which to deposit eggs. Nothing could well be simpler; even a child, if properly instructed, can clip queens with a knife as well as the experienced bee-keeper. Drones and workers afford excellent practice for the beginner, until he has learned just the proper movement. In the picture is shown a seven-year old boy who has clipped many queens with a knife, and is here in the act of clipping a valuable breeder. While it probably would not be advisable to allow such a child to pick a queen off the comb with one hand and transfer it to the other hand, and then go at her with a pair of scissors; to do it with a knife, after some instructions and practice, there is no good reason why he should not clip two hundred queens in a day without endangering one of them, and doing it as well as an experienced bee-keeper.

POSITION OF THE HANDS IN CLIPPING.

The twentieth century bee-keeper will smile at the thought of using scissors and such contrivances as the "Monette" device, and taking queens from the comb to clip them, as is yet advocated—and well he may.

THE MANAGEMENT OF BEES.

S. FRED HAXTON.

AFTER the honey harvest, and before winter sets in, the successful bee-keeper will have examined his colonies, feeding those in need of stores on sugar syrup or giving them well-filled combs from hives that can spare them.

The best filled combs, which are usually next the walls of hive, should be shifted to the center, as the bees cluster there during winter, and in very cold weather will not move to the outer frames even to escape starvation. In order that the bees may move from one frame to another without going to the top or bottom of the frame, it is a good plan to cut holes an inch in diameter through the combs.

If the bees are in single-walled hives they are apt to suffer loss in winter, unless the hives are placed close together, thus forming a protection for each other, or are so constructed that an outer case can be slipped over the hive and the intervening space filled with cut straw, leaves, or some other packing material. The value of the honey produced by one colony saved, in a fair year, will pay for several cases to protect the hives.

Many apiarists winter their bees in cellars, and this is a good plan if the cellar is dry and can, without trouble, be kept at a temperature of from 45 to 55 degrees.

In the early spring the bees begin to rear brood and if there is any honey to be gathered (for in some years this qualification is necessary), those colonies rearing the most brood, and consely the strongest, will gather the most honey and thus yield the greatest profit to their owner.

To promote rapid brood production, a little stimulative feeding is very beneficial. A half pint of sugar-syrup, fed warm in the middle of the day two or three times a week, will make a marked difference in the state of the colony. When the frames in the center have been fairly well filled with brood and eggs, the frames should be separated and a couple of outer ones placed in their midst. If they are well filled with honey, the cappings should be broken, causing the bees to remove the honey to another part of the hive and fill those in the center with brood, thus increasing the size of the brood-chamber and the strength of the colony. Empty hives should be on hand when the time comes for their use, as swarms will not remain clustered more than two or three hours, and many a swarm has been lost because no hive was prepared for it.

My apiary is near an orchard, and, to save climbing and unnecessary work, I have a nail keg fastened to a twenty-foot pole, by means of which I place the keg about the cluster and, having jarred the bees into it, dump them out before the empty hive, and in ten minutes have the swarm in their new location. I find that it pays better to use starters instead of full sheets of brood foundation in the brood-frames.

Oakfield, N.Y., July 17, 1900.

PREVENTION OF SWARMING.

How it is Accomplished in the Production of Comb Honey.

BY J. W. TEFFT.

THE bee-keeper's life, providing it is reasonably successful, as one in five hundred may be, certainly has its advantages and attractions. I live where I please—am not chained to a post: my calling ties me to no office stool. I am no man's slave. I appreciate the liberty from town life and rejoice in the freedom of the farm and forest surrounding my rural home: awaking each morning to the music of humming bees, breathing pure air and exercising limbs as well as brain. All happiness must be purchased with a price, though bee-keepers seldom appreciate this fact. A part of the price in this instance is in thus living in such a way that to amass a fortune would be impossible: yet, as it is highly improbable that I should have been able to do this in any other pursuit I may claim to have made the wiser choice in my selection. I do not wish the readers of THE AMERICAN BEE-KEEPER to get the impression that I presume to know all about bees: though I am well aware that I cannot afford to keep bees at all unless I know a great deal about them. I know it does no good for the impression to get abroad that an apiarian writer receives pay for is writing, though I note your proposition in the July number to exchange dollars and queens for ideas.

In the August number Mr. Doolittle gives his method of preventing swarming, which is capital; though I think I have a better and more simple plan. I try to give the queen ample accommodations in a wide, well-ventilated brood chamber. Experience has taught me that in order to obtain the best results I must keep the bees at work in one hive. Empty combs or frames of foundation given at times, as the queen requires room, is my plan—and it is the correct plan. I never take any brood from the hive, for the reason that it would be impossible to get the best returns if I should do so, in the production of comb honey. To do this, the brood nest must be in the brood chamber, and not in a top story. I start in the early spring with a good queen, having bees enough to cover eight or nine L frames. After the packing has been removed and the hive and bees put in order, I replace the enameled cloth—which had been removed the fall previous—over the frames, to retain the heat. Over this the chaff cushion is placed. I sometimes stimulate the queen by uncapping some of their stores, or otherwise feeding them. As the season advances I crowd the honey to the outside of the hive, by spreading the brood and inserting empty combs. This I do from time to time until I have thirteen combs in the brood chamber. Finally I take out two combs of honey and replace with empty combs. By this time—say June 20th—I have an army of workers and brood combs full of brood just before the opening of basswood bloom.

When putting on sections I place my surplus tray * down in front of the hive, take from the brood chamber all combs containing unsealed brood, with adhering bees, leaving nine frames of mature brood in the brood chamber. Sometimes I take but two frames from below, leav-

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* This, we believe, is an upper story in which wide frames are used.—ED

ing eleven. The frames of brood removed are alternated with frames of sections in the surplus tray, which is placed upon the hive over the brood chamber. Between each frame of brood and sections I use my novelty separator, and as soon as the bees begin work in the sections I shake all bees from the frames of brood and give the brood to colonies that need it; but if the colony is too strong I take brood and adhering bees and form nuclei with them. In this way swarming is prevented; I have no swarms at all.

South Wales, N.Y.

NOTES FROM THE KEYSTONE STATE.

M. F. REEVE.

THE APRICOT FOR EARLY POLLEN.

There is a Russian apricot tree just alongside of my little collection of bees at Rutledge. It bloomed profusely early last spring, long before any other fruit trees, and afforded a source of pollen and nectar for the brood even as early as the willows and gooseberries, it seemed to me. The tree was filled almost at daylight with the musical hum of the host of bees, and up to nightfall they were buzzing among the branches. The effect in the setting of the fruit was, of course, in proportion, but insect pests damaged the crop. I desisted from spraying on account of the possible injury to the workers, which might resort to the tree for moisture even after the fruit had "set," although their supply generally comes from a run about a block away. I would advise the planting of the Russian apricot in localities where early pollen is deficient.

ALARMED OVER FOUL BROOD.

There was considerable alarm among the members of the Philadelphia Bee-keepers' Association at the July "outing" at an apiary at Collingdale, when it became noised about that "black brood" had made its appearance in at least two apiaries in suburban Philadelphia, and fears were expressed that the disease had also gained a foothold among the colonies of the host. The discovery was made subsequently, however, that the supposed dead brood was very lively and hatched out all right. so the owner demonstrated by exhibiting some of the "hatching" cells several days later on. It appeared in the discussion at the "outing" that the infection had come from bees purchased from an infected colony of something like 200 hives in the suburbs of Philadelphia. There was a disposition manifested in certain directions to keep the "foul brood" matter quiet. a step which some of the others regarded as a mistake.

The host gave a demonstration of queen-rearing by the Alley improved system, which was appreciated by those who saw it.

Rutledge, Pa.

PREPARATION FOR WINTER.

REV. C. M. HERRING.

During the warm days in autumn every colony of bees that lacks stores for wintering should be fed on syrup made of the best of sugar, four pounds to one quart of water brought to a boil. Wintering in a barn chamber or closed-up out-house is not best, for it affords no let-up on warm days.

It is much better to have the hives outdoors if they are protected, where a warm change in the weather will give the bees an opportunity to change the locality of their cluster nearer to their stores.

It is the let-up in the weather that makes the difference, without which, as in a cold, tight building, the bees unable to move out from the cluster by reason of the cold, to get at their stores, will starve while there is plenty of food in the cold, remote parts of the hive.

In the cellar it is not so when kept at a temperature of about 38 degrees. If the cellar is dry, well ventilated and dark, it is the best place for the bees during the three winter months, but early in March they should be on their summer stands. A closed-up room or building, that is too warm, is equally fatal to bees.

Brunswick, Me.

THE
AMERICAN
BEE-KEEPER

PUBLISHED MONTHLY BY
THE W. T. FALCONER MANFG. CO.

H. E. HILL, - - - - - EDITOR.

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☞ Matters relating in any way to business should invariably be addressed to

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☞ Articles for publication. or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Messrs. F. Greiner, S. F. Haxton, W. H. Pridgen and J. W. Tefft get the cash and queens for October.

Do not neglect to prepare the bees very carefully for the coming ordeal of winter. If you have been unfortunate in not securing a profitable crop of honey this season, next year may square accounts; provided the bees are in condition to take advantage of the flow.

"A $200 Queen," or even "a $100 Queen," makes a very catchy headline for a queen-breeder's advertisement. It is a very simple matter for a breeder to place such a valuation upon the queen from which he breeds—in his advertisements. We know of a number of breeders at present who claim to be breeding from such high-priced stock.

Reference is frequently made of late, in our exchanges, to the "Hyde method" of cell building. If THE BEE-KEEPER is not behind the times—which we think it is not—Mr. W. H. Pridgen was the first man to advocate the confinement of bees for cell building. For the sake of uniformity, we use the term by which it appears to be popularly known at present; but incline to the belief that the honor belongs to Mr. Pridgen.

The *Western Bee-keeper* is informed that twenty-four maiden ladies arrived at Denver, Col., on one train, recently, to engage in the culture of bees in that State. Our contemporary is of the opinion that Colorado offers to women in quest of profitable investments for their savings, a very desirable field, as apiarists. California, we believe, would offer even greater inducements to such a trainload of aspirants for fame in the realm of apiculture. There would be abundant opportunities for them to become equal partners in well-established apiaries without the expenditure of capital.

Editor R. B. Leahy, of the *Progressive Bee-keeper*, has been taking his annual outing among the bee-keepers of that stretch of country between the Mexican border and the Canadian frontier. In his rounds he visited Texas, and was present at the convention of the Central Texas Association. Speaking of this meeting of bee-keepers in the Lone Star State, he says: "I have never met with such an enthusiastic gathering of bee-keepers in my life."

THE BEE-KEEPER learns with sorrow of the death of Mr. Doolittle's mother, aged eighty-five years, which occurred in August last, after an illness of five weeks. Mr. M. F. Reeve, another of our esteemed correspondents, writes pathetically of the death of his father during the same month. The letters to the editor of these bereaved friends, expressive of such deep affection for their departed parents, elicit our profound sympathy and condolence.

In working for the evolution of bees with longer tongues, in order that they may reach the nectar in red clover, thus greatly increasing the source of supply as well as the seed crop, E. E. Hasty tells in *Gleanings* of his personal efforts to shorten the road to success by working to establish a variety of clover having shorter corolla-tubes. Developments at both ends of the line will be observed with interest by those engaged in agriculture and bee-keeping.

It appears that *The Western Bee-keeper* "will not down." A copy of the September number of that supposedly defunct organ is before us. It very nearly approaches the departed *Bee-keepers' Quarterly* in point of preference for its own productions; the matter being chiefly editorial. Some of these "editorials," however, are verbatim reproductions from THE AMERICAN BEE-KEEPER and other bee papers, without credit. While we regret that this bright little Westerner is too young to "roast"—for its disregard of propriety—we are pleased to note that it has been resuscitated, and wish it great success.

As a result of Mr. Doolittle's ingenuity it is quite likely that the bee-keeping world shall be provided with a cell-cup, at an early date, which is practically indestructible. By its adoption, the use of cell-protectors will become entirely uncalled for in the queen-rearing apiary. Having queens hatch from holes in a block of wood has something of the sound of a fairy tale; yet this is exactly what Mr. Doolittle has been doing, and we are indebted to him for an account of his experiments in this line, as well as for specimens of the cells from which queens had hatched. We shall give it all in our queen-rearing number.

Mr. Henry Alley, the veteran queen-breeder of Massachusetts, we are pleased to learn, has had great success in business this year. He has adopted a new system in the starting of cells with which the public will be made acquainted a little later. Mr. Alley claims that he is enabled to produce queens superior to those reared under natural swarming. Anything giving promise of such results as this will immediately elicit and retain the interest of every bee-keeper, until such times as Mr. Alley finds it convenient to afford relief, by permitting us to put the plan into practice. Mr. Alley will contribute an article to the coming queen-rearing number.

Of the various methods recommended for the starting of queen-cells, where artificial cups are used, it is doubtful if any will yield as large a percentage of perfect cells as that of confining the bees on combs of honey without brood, for several hours. One great objection to the practice of this plan is the loss of bees which escape while the cups are being given. After being thus confined they will, of course, "boil" out of the hive as soon as it is opened. We have devised a practical method of giving the cups without opening the hive, hence, it is impossible for a single bee to escape. The plan will be illustrated and explained in our queen-rearing number, which we are now arranging to get out.

Dr. E. Gallup, in *Am. Bee Journal*, says San Diego County, Cal., has produced this year about four hundred tons of honey, nearly all of which has been sold in the German markets at from 5 to 6¼ cents a pound. It becomes more clearly evident that the European market is to afford relief from the outrageous freight rates to Eastern points, to which the producer of the Pacific Slope has heretofore been subject. The question of transportation was for some years the gravest problem which confronted the California bee-keepers. It now appears that the excessive charges imposed by railway companies, in carrying the crops to the Eastern markets of our country, is to result beneficially to the producers. "Ill blows the wind," etc.

A recent letter from a friend in Ecuador states that he has never seen honey in the markets of that country, and that, after a great deal of inquiry, he has failed to find anyone having any knowledge of bees. Take into consideration the fact that our correspondent dates his letter from Guayaquil, the chief maritime port of the republic, it would appear that the world is not yet overcrowded with bee-keepers. It is not improbable that succeeding generations may see the bee-keeping industry in extensive operation in all parts of the world, with a list of representative journals correspondingly increased. There is obviously much room for expansion and improvement in every department of the business. Some of our apicultural editors evidently fail to appreciate the great possibilities before us.

The *Western Apiary*, edited and published by C. H. Gordon, Boulder, Colorado, is the latest candidate for public favor in the field of apicultural journalism. It is a sixteen-page monthly, very nicely gotten up and contains very readable matter, both original and selected. This gives Colorado two bee-papers, *The Western Bee-keeper* and *The Western Apiary*. The more good journals we have, the better; but it is extremely questionable that both of these shall live to realize their youthful dreams of ultimate success. We see no good reason why a good representative journal should not find support in the West. If both succeed, all the better. It is our wish that they may; but it will doubtless be a case of the survival of the fittest.

At the convention of Ontario bee-keepers, Toronto, reported in *Canadian Bee Journal*, some of those present were inclined to regard bee-paralysis as a result of poison gathered from the bloom or foliage of fruit trees during the spraying season. Upon this point there is no room for question. Not only are the symptoms of poisoning and paralysis entirely dissimilar, but it is a fact that paralysis makes its appearance with great regularity in certain primitive countries, quite remote from cultivated districts. Messrs. Hall and Armstrong stated that in their experience a removal of the queen had resulted in a cure of the disease—paralysis. Repeated trials of this treatment in our own apiaries lead to the conclusion that the same disappearance of the trouble would have taken place in the same space of time had the queens not been removed. It would have ceased only to reappear the following season, as stated by Mr. Hall. A light sprinkling of sulphur over all bees and both sides of the combs was found by Mr. O. O. Poppleton, of Florida, to effect a cure. We gave this treatment a very thorough test some years ago, and found that all affected bees would almost immediately die and no further signs would appear. The plan proved to be impracticable, however, as combs thus treated would never be used for breeding purposes again by the queen.

APIARIAN EXHIBIT AT THE PAN-AMERICAN EXPOSITION.

Mr. Frank A. Converse, superintendent the live stock and agricultural and dairy products of the Pan-American Exposition was present at the convention of the National Bee-keepers' Association in Chicago, and addressed the meeting in regard to apicultural exhibits. Mr. Converse very earnestly expressed the desire that the bee-keepers of the United States should make a display befitting so important an industry; and pledged his hearty co-operation in carrying into effect the bee-keepers' plans in this direction. It is now the plan of the management of the exposition to have this apiarian display representative from States. That is, if an individual from California or New York makes an entry, his exhibit will be placed in and become a part of the State exhibit from which the produce comes--California or New Pork.

The apiarian exhibit is to be placed in the main agricultural building, where it will be seen by every one. Not all are interested in bees while every visitor to the exposition will visit the agricultural building, and, as Mr. Converse says, they will be obliged to see the display whether they are especially interested in it or not.

WHO SHALL FIX THE PRICE?

The *Bee-keepers' Review* discusses the question of disposing of the honey crop, giving several columns of good advice to shippers. When shipping on commission, Editor Hutchinson emphasizes the importance of selecting a firm known to be reliable. When we have decided to entrust our product to some responsible firm, Mr. Hutchinson thinks, the matter of price etc., should be left to the discretion of said firm. His idea is that if we have not confidence in the firm's honesty and ability to do the best possible for us, we should not ship there: and if we have this confidence, we should not hamper our agent by restricting him. In other words, we should likely fare better by taking advantage of his experience in the business and the knowledge of conditions, which comes to him as a result of his constant contact with the trade. *Per contra*, H. D. Burrell, in the *American Bee Journal*, in strongly contending for better prices for our product, urges the importance of stipulating the price at which it shall be sold, when sent to commission houses, and cites instances wherein he has greatly profited by so doing. He has found the commission man a pretty good fellow; but he is between two fires. He is anxious to secure the highest possible price for his shipper and is no less desirous of pleasing his customer, who, by the way, may be an old patron and friend. Mr. Burrell therefore urges that it be put beyond the power of the agent to make any reduction from the highest market price, by stipulating the figure at which the honey must sell, if sold at all.

The advice in both instances is good, if applied where it fits. The reading bee-keeper knows pretty well the condition of the market and what he should receive for his honey. The one who is not informed would better leave the matter to some one who is.

THE COCOON BASE CUP FOR ROYAL JELLY.

On page 151, August number, we expressed the opinion that cell-cups with cocoon base were perfectly adapted to the requirements of those breeders who practice transferring royal jelly and larvæ according to the Doolittle method. We have quite extensively used both styles of cups in this way, with results very equally balanced; and as a small amount of jelly is rather more conveniently deposited in the center of the cocoon base than in the original style of cup, we were inclined to favor their use exclusively. Referring to this matter Mr. Doolittle, in a private letter, says:

"Now, don't you be deceived in that way, for with some having these deep bases I have proven that not fifty per cent. are accepted; and this after several experiments."

We are glad to have this bit of information, for the cell-cup question is one which has largely engrossed our attention for several years, and anything which gives promise of aiding in an early perfection of appliances and simplified methods—methods which, by their evident superiority, shall cause their general adoption—in queen-rearing apiaries, is highly esteemed. If experiments more thorough than those which we have conducted have demonstrated the bees' preferences for any one style of cup, we are glad to know it. We have reared many hundreds of queens during the past ten years by the Doolittle method, using the style of cup recommended in "Scientific Queen-rearing," though, as we have have recently learned, the cups were not nearly so heavy as those made and used by the originator of the system. We doubt if there are any using Doolittle cups to-day who make them as heavy as does Mr. Doolittle himself. We have used a great number of cups during the past season having the cocoon base. In some of these royal jelly was used and in some cocoons were placed, and, as before stated, those having the jelly were as readily accepted as those with the large base, of which we also used a large number.

We shall probably go farther into details of this matter in our queen-rearing number now projected.

* * *

The frequent rains over the country are causing good fall flows of honey in various sections, especially in Wisconsin, where there was such a drouth and an almost complete failure of white honey.

THE HONEY CROP.

J. W. Tefft, South Wales, N. Y., writes: "No white honey in Western New York this year. Some bees will starve before fall bloom arrives. We hope to secure enough from fall flowers and buckwheat to winter our 77 colonies."

Mr. J. B. Hall, the noted producer of comb honey, of Woodstock, Ontario, in a private letter gives the impression that his province is short of honey this fall. In some localities, Mr. Hall says, the crop has been a total failure.

H. H. Robinson, Port Orange, Fla., reports an increase from sixty-five to 110 colonies, and 6,000 pounds of extracted honey.

From Mitchell, Oregon, J. P. Province writes that they have had a very poor season.

Mrs. F. E. Gilson, of Groton, Mass., writes as follows: "There are only two or three small bee-keepers in this vicinity, and the demand is much greater than the supply. I have kept bees for eight years, but have never been able to furnish all the honey that is wanted. This season has not been good—it has been so dry. I trust this will not be the complaint of all."

The SEASON in NORTH CAROLINA.

Characteristics of Different Races.

W. H. PRIDGEN.

SOMETIMES the failure to secure a crop of honey is attributed to too much rain, and at others to too little, and as a great many are reporting entire failures it may be interesting to note the conditions and results in this section.

Old men say they never saw a warmer or drier summer. We have had a few light showers and only two good rains since April, and it is estimated that field crops are all cut off at least half upon an average, and still the crop of honey has been better than I have ever known. At one time hardly any brood could be found except in newly-formed nuclei, which were lacking in field force, while the removal of full combs and the giving of empty ones had no effect in full colonies, further than to supply storage room.

Those supplied with three sets of combs neglected brood-rearing as much as any, and for a while I thought we would have all honey and no bees, but being rich in stores, they built up rapidly after the rush was over.

The flow from spring flowers was good, beginning about May 1st, and lasting three or four weeks; but the heavy flow was the first of July, from sourwood and one would judge, the bark of the trees, being mainly honey dew, of a light amber color and good flavor. Cotton bloom yielded sufficiently to keep the bees out of mischief up to Aug. 25th and there was no tendency to rob up to that time; but now hardly a flower can be found, evesything is drying up except wild asters, and nothing sweet can be exposed. Should we have rain in time there is still a chance for another flow from the asters.

It is evident from Mr. Greiner's article beginning on page 167 that he has studied well the characteristics of the different races of bees, and I am anxious to see what the emphasizer will say. He has certainly got to meet some stubborn facts.

Creek, N. C., Sept. 12, 1900.

Honey and Beeswax Market.

NEW YORK, Sept 18, 1900.—Receipt of comb honey very light. There is a good demand for all grades and we quote as follows: Fancy white, 15 @ 16c; No. 1 amber, 13 @ 14½c.; amber, 9½ @ 11c.; buckwheat unglassed, 10c.; buckwheat glassed or cartons, 11c; white eztracted in barrels, 7 @ 7½c.; light amber extracted in barrels, 6½ @ 7c.; buckwheat extracted in kegs, 5½ @ 6c. Beeswax in good demand at 28c

FRANCIS H. LEGGETT & CO.

KANSAS CITY, MO., Sept. 17.—Supply of both comb and extracted honey is light and the demand good. Comb, 13 @ 14c.; extracted, 6 @ 8c. Conditions for beeswax the same at 25 @ 30c. It looks as though the demand would continue strong and receipts light. Market in good shape for shipments. W. R. CROMWELL PRODUCE CO.

BOSTON, Sept. 17—Our honey market is very strong at the following prices with supplies very light: Fancy 1 lb. cartons 17c.; A No. 1 15 @ 16c.; No. 1, 15c.; No. 2, 12 @ 13c.; extracted 7½ @ 8½c., according to quality. Can see no reason why these prices should not be well maintained right through the season, and advise shipping.

BLAKE, SCOTT & LEE.

CHICAGO, Sept. 17.—The demand is good for all grades of honey, but supply is not heavy. We quote, for best white comb, 14 @ 15c.; amber, 10 @ 12c.; extracted, 6 to 8c. Beeswax is scarce and sells at 28c.

Prices are fully equal to those obtained last year and it now appears as if this would be a season of high prices. R. A. BURNETT & Co.

BUFFALO, Sept. 17, 1900.—The demand for honey is improving, but supply is still light. Fancy Comb sells at 15 @ 16c.; other grades 10 @ 14c. We have always a good demand for beeswax while the supply is always moderate. Prices—fancy, 30 @ 31c.; other grades, 25 @ 28c.

Really fancy 1-lb. comb is wanted and moves well at 15 @ 16c., other grades slower and accordingly lower. BATTERSON & Co.

LITERARY NOTES.

In the October *Ladies' Home Journal* Edward Bok takes up the cudgel again against the cramming methods inflicted on school-children, and urges as a step toward a reform of the abuse "that every parent who has a child at school will send a note to the teacher that, under no circumstances whatever, will the father and mother permit any home-study by the child.

"This may seem to be a very simple thing to do," he contends, "but often the simplest things are the most effective. If the teachers of this country should, within the next month, receive thousands of notes from parents to the effect pointed out, which they could—and I can speak for hundreds of teachers when I say that they would gladly do so—hand to the heads of their schools, it would practically mean a re-adjustment of the entire system of study. This may be better understood when it is realized that the entire system of study during school hours in many of the schools is so arranged as to allow for some of the work to be done by the pupils at home. Let this taken-for-granted home study be stopped, and a change would have to be made. The studies at school cannot be increased in number, for already they are too many. The school hours cannot be lengthened, because the tide has set in to shorten them. Hence, some studies would have to be thrown out, if home study were eliminated. And this is the result desired."

The *Saturday Evening Post* for September 29 is a special double number. The cover is by Gibbs, and is in color. The opening feature is the first installment of Gilbert Parker's new serial, The Lane that Had No Turning. Those who have read this story pronounce it the strongest work that Mr. Parker has yet done. United States Senator Albert J. Beveridge, of Indiana, has a brilliant paper on Facing the World at Fifty, in which he marshals an imposing array of successes after the half-century mark had been passed. Major James B. Pond contributes two pages of remiscences of Mark Twain, giving for the first time letters and anecdotes referring to his last lecture tour across the American continent. The short fiction of the number includes complete stories by Ian Maclaren, Lilian Quiller-Couch, Gertrude F. Lynch and Madeline Bridges. Honorable Champ Clark has a lively article on Stumping in Old Missouri. There are installments of Mooswa of the Boundaries, W. A. Frazer's animal story and of The Eagle's Heart, Hamlin Garland's novel of the far West. On the page devoted to Men and Women are stories of people prominent in the public eye. The editorial page treats of politics, the census and other current themes. The "Publick Occurrences" department tells how, through coal and gold the United States has captured the supremacy of the world. Besides these attractions there are articles giving the latest scientific discoveries, Secretary Wilson's views of Farming as a Business, Old-time Minstrel Men, with new stories and anecdotes; the latest gossip about books and literary people, and short articles and sketches.

* * *

The question whether bees should be subject to taxation the same as other property has been much discussed of late, and it has been pointed out with plausibility, at least, that since bee-men desire protection of the law for hives and their contents and demand special legislation (spraying laws etc.), there can be no valid protest against a reasonable amount of taxation being levied.

The A B C of Bee Culture.

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The new edition will be ready for delivery about November 15. Send your orders at once to get a copy of the first lot from the bindery. Orders filled in rotation. Orders may be sent to the undersigned, or to any dealer in bee-keepers' supplies.

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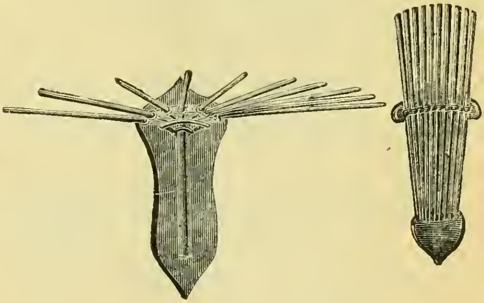

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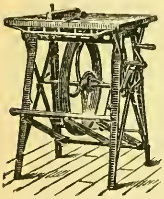

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Every bee-keeper who has had experience with several strains of bees knows that some are far superior to others—that there is scrub stock among bees, just as there are scrub horses, cattle, sheep and poultry. Let me give my own experience. Years ago, while living at Rogersville, I made a specialty of rearing queens for sale. Before engaging in this work I bought Italian queens and Italianized, not only my own bees, but all within three miles of my apiary. In buying those queens I think that I patronized nearly every breeder in the United States; and even in those years of inexperience I was not long in noting the great difference in the different strains of bees. The queens from one particular breeder produced bees that delighted me greatly. They were just plain, dark, three-banded Italians, but as workers I have never seen them equaled. They seemed possessed of a steady, quiet determination that enabled them to lay up surplus ahead of the others. Easier bees to handle I have never seen. It sometimes seemed as though they were too busy attending to their own business to bother with anything else. Their honey was capped with a snowy whiteness rivaling that of the blacks. In addition to these desirable traits must be added that of wintering well; if any bees came through the winter it was the colonies of this strain. They came as near being ideal bees as any I have possessed. All this was twenty years ago; and several times since then I have bought queens of this same breeder, and I have always found this strain of bees possessed of those same good qualities—industry, gentleness and hardiness. In addition to this they cap their honey as the blacks do theirs. I have frequently corresponded with this breeder, and with those who have bought queens of him, and I am thoroughly convinced that he has a strain of bees that are far superior to the general run of stock. If I were starting an apiary for the production of honey, I should unhesitatingly stock it with this strain of bees.

This breeder has always advertised in a modest, quiet sort of way, nothing in proportion to what his stock would have warranted, and I have decided that I can help him, and benefit my readers, at a profit to myself, by advertising these bees in a manner befittingly energetic.

The price of these queens will be $1.50 each. This may seem like a high price, but the man who pays it will make dollars where this breeder and myself make cents; and when you come to read the conditions under which they are sold, it will not seem so high. The queens sent out will all be young queens, just beginning to lay, but, as there are no black bees in the vicinity, it is not likely that any will prove impurely mated. If any queen SHOULD prove impurely mated, another will be sent free of charge. Safe arrival in first-class condition will be guaranteed. Instructions for introducing will be sent to every purchaser, and if these instructions are followed, and the queen is lost, another will be sent free of charge. This is not all; if, at any time within two years a purchaser, for any reason WHATEVER, is not satisfied with his bargain, he can return the queen, and his money will be refunded, and 50 cents extra sent to pay him for his trouble. It will be seen that the purchaser runs NO RISK WHATEVER. If a queen does not arrive in good condition, another is sent. If he loses her in introducing, another is sent. If she should prove impurely mated, another is sent. If the queen proves a poor layer, or the stock does not come up to the expectations, or there is ANY reason why the bargain is not satisfactory, the queen can be returned and the money will be refunded, and the customer fairly well paid for his trouble. I could not make this last promise if I did not KNOW that the stock is REALLY SUPERIOR.

I said that the price would be $1.50 each. There is only one condition under which a queen will be sold for a less price, and that is in connection with an advance subscription to the REVIEW. Any one sending me $1.00 for the REVIEW for 1900 can have one queen for $1.00; that is, I will send one queen and the REVIEW for 1900 (and 12 back numbers, free) for only $2.00. Of course, this special offer is made for the sake of getting the REVIEW into the hands of those who are unacquainted with its merits. Orders will be strictly in rotation.

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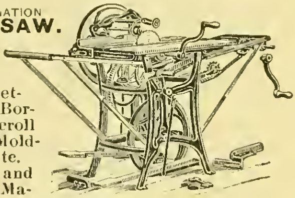
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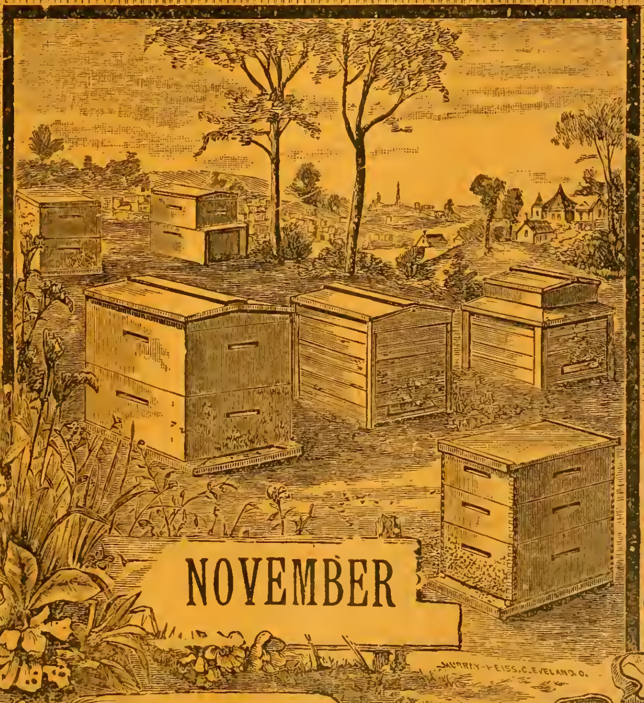
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NOVEMBER

1900
Vol. X No. 11

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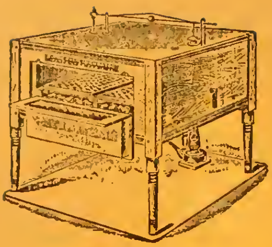

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Bee-keepers' Review, send me $1.30

and I will have your subscription to THE AMERICAN BEE-KEEPER renewed for one year, send you 12 back numbers of THE REVIEW, and then THE REVIEW for all of 1900. Remember two things: You must be a NEW subscriber to THE REVIEW, and the order must be sent to

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MR. J. B. HALL, ONTARIO.
(See pages 205-209).

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. X NOVEMBER, 1900 No. 11

THE OCTOBER BEE-KEEPER.

Emphasizing the Good Things in the Last Number.

BY G. M. DOOLITTLE.

LEGS CUT OFF WITH A SAW.

NOW, don't think some great catastrophe has happened to some poor, unfortunate human being, or that even one of our pet queen bees had her legs amputated when her owner was trying to clip her wings, for nothing of the kind has happened. No, no! The kind of leg cutting which we are about to emphasize is something which will please everybody who tries it. Did the reader notice, on page 184, how friend Greiner cuts off the "legs" or brace-combs from the separator with a thin-bladed compass saw? If not, go right back to that page and read the matter over again till it is thoroughly stamped in the memory. It seeme so very funny that so many little things slip by us writers for years, we thinking that everybody must know of these little "tricks of the trade," and so do not speak about them. Almost ever since I can remember I have been in the habit of setting the filled supers up on end so turned that the sun could shine in between the sections, so as to tell me what proportion of the sections was completed at the bottom, and to see if any of the combs were attached to the separators; but never thought of speaking of the matter till I saw it in print (I think in *The Review*) a short time ago. I then saw that I could have told long, long years ago what might have been of help to the fraternity, but had not thought to do so. Then, like Brother Greiner, I was not pleased with the way the knife had of crowding the brace-combs into the honey while detaching them from the separators, so conceived the idea of taking an old long-bladed, very thin bread-knife, and hurriedly passing it over a coarse rasp, thus giving it what is called a very coarse sickle edge which, if made coarse enough, amounts to the same thing as a saw. The bread-knife has the advantage over the saw, in its being very much thinner. But I had never thought to say a word about this way of fixing a knife. Thanks, Bro. Greiner, for calling attention to the matter of these brace-combs a second time and of being the first to tell about the saw for removing "legs" of comb.

NONE BUT AN EXPERT.

But there is an item on page, 184 that I wish to emphasize the other way from what Bro. Greiner puts it. He says, "I find it impracticable to impart my ideas about this matter (grading honey) to anyone not an expert." Here is something I cannot understand. Will Bro. Greiner please tell us how any one is to become an expert at grading honey if nobody will ever tell him of such things because he is a novice, or inexperienced, as Greiner .puts it? I do not think it best to "cast pearls before swine," in trying to teach an imbecile how to grade honey, but I do think I have a duty to perform by giving my very best endeavors toward teaching every bright boy or girl how to become experts at grading honey or grading anything else in the right way, which I have reason to believe I am right about myself. And why? So that these girls and boys may grow up in a way to be of more benefit in the world than I have been, and that thus, by every succeeding generation, this world may be lifted up and up to a higher plain—a plain nearer God. Just set up two or three sections of each of the different grades you wish to sort your honey into, friend Greiner, and tell those inexperienced persons, who are fairly adapted to do things in the world, to sort the honey as you have given them pattern, and see how quickly they will "catch on." Use a little patience and stay by them a little time till they succeed, and then go away by yourself and see what a joy will come, because you have not only helped yourself, but helped somebody else also, and put them in a way of securing a living for themselves. The masses do not want charity from those who have become experts at getting and keeping the good things of this world, but they want justice, through their having a chance equal to their ability to comprehend and use the things which are theirs by right. But I must not dwell longer on friend Greiner's article, though there are several other points I would like to touch upon.

STEADY, BROTHER EDITOR.

I have read that "Clipping Queens" article over and over again, and the more I read it the more I wonder if Doolittle could ever become that calm that he could clip Bro. E. R. Root's $200 queen the way he advocates. I have clipped thousands of queens, but I never yet attempted to clip a very valuable queen but what a sort of shaking process comes over me, in a nervous anxiety not to harm the queen. I have said over and over again that I would not get nervous when thinking of clipping valuable queens; but the matter always turned out in the same way it did when I declared "I would not shake" when I had the fever and ague, for I just simply *had* to shake whether I would or no. So I say "steady" in this matter, for all are not like the writer of that article; no, nor even like the seven-year-old boy, so nicely pictured for us. Then I wondered what the writer of the article, say nothing about the boy, would do when trying to clip a black queen (remember Bro. Greiner keeps and advocates black bees) or a poor grade of hybrid, which was continually on a "dead run" trying to get on the other, or dark side of the comb. The only way I could ever "engage the tip of the wing" of such a queen was to "lay hold" of her very much as a shepherd lays hold of an unruly sheep which is trying to evade his grasp. But I do advocate the sharp knife plan in preference to any other, after trying everything which has been recommended.

FILLED COMBS IN THE CENTER OF THE HIVE FOR WINTERING.

There are several things in S. Fred. Haxton's article, page 187, which I would like to notice, but time and space forbid noticing more than one; and that one reads, "The best filled combs, which are usually next the walls of the hive, should be shifted to the center, as the bees cluster there during the winter." I would like to ask all of the readers of THE BEE-KEEPER who find this assertion about clustering true, to hold up their hands. It is true where the most empty comb is in the center; or, in other words, the bees will establish their winter cluster where there is the most empty comb, or where the last brood emerged from, no matter whether that empty comb be in the center or at one side of the hives, as is frequently the case with small colonies. And this is invariably the case where combs have been manipulated as friend Haxton proposes, provided that said manipulation is done early enough in the season so the bees can establish their cluster to their liking. Therefore, after the manipulation he proposes, the cluster of bees will not be in the center of the hive, as his article carries the idea, but at one side or the other, so the bees must move over on to the full combs after his manipulation, just the same as they would had they not been disturbed. But this fact does not prove that his ideas are wrong regarding the way he fixes his comb for winter, for they are not. To my mind, after thirty years of experience, the "starvation in winter with plenty of honey in the hive," does not come with the inability of the bees to move to adjacent combs (provided sticks are laid over the frames where the covering rests on the top of the frames), but through eating their way toward one side of the hive till the stores on that side are all exhausted during some cold spell, when they cannot move *en masse* over to the opposite side of the hive, where there are stores. This being the case, Mr. Haxton's plan of arranging the combs prevents their starving till all the honey in the hive is used up. But the better plan is (and the one I have adopted for years) to place all of the empty and partly empty combs at one side of the hive, and from those to those entirely full at the other, and in this way the bees are moving toward the fullest combs all the while. However, if the hive contains twenty-five or more pounds of stores on the first day of October, in this locality, as it should, there is no danger of the bees starving before they can carry their honey where they wish it in spring, from any part of the hive to the cluster, so that, of late years, I very rarely touch any comb in any good colony having plenty of stores in the fall of the year.

A LIFE OF LIBERTY.

Here I am again with my space all used up and much more in the October number, which I had marked when reading, not touched upon at all; but I cannot close without calling the reader's attention to the good things in the first part of Bro. Tefft's article. Read it over again, you who sometimes think of leaving bee-keeping and going into something else, that you may get riches. What do riches amount to, anyway? Many a man or woman would give their millions for a comfortable living, a living with the liberty Bro. Tefft speaks of, if they could only get away from the environments these millions have thrown around them. It may be that I feel thus because, as Bro. Tefft says, "it is highly improbable that I could have been able to amass a fortune, anyway." But be this as it may, a life of liberty in the open air with the bees, seems sweeter to me than all the gold of Ophir.

Borodino, N.Y., Oct. 20, 1900.

SENDING EGGS BY MAIL.

Extensive Experiments Demonstrate its Practicability—An Article of Especial Interest to Queen-breeders.

BY "SWARTHMORE."

HAVE been so up to my eyes in experiments the past summer that I have had little time for anything but bees. My attention has been mainly directed toward queen-rearing, and I have much in that line to tell you.

First among the new things, I place the advantage of "Eggs by Mail," for queen-breeders.

I have in my yard a large number of fine, young, mated queens, reared from eggs sent to me by post, from all over the country.

Early in the season I began writing cards to all the distant queen-breeders throughout the land, about as follows, viz.: "What will you charge me for four square inches of fresh-laid eggs in dry comb, from your finest breeding queen, packed in box and sent by mail—no bees?" Prices ranged from 25c. per square inch down to 25c. per four square inches. I am not prepared to state just now what I should consider a fair rate to pay for "Eggs by Mail."

I at once began to receive batches of eggs from all over—worker and drone—and in a very few weeks I had as good as all the finest breeding queens in the country in my own yard to breed from and to criss-cross as I saw fit—a great advantage to any apiarist who is in for improving the general standard of bees.

Every piece of comb sent arrived in good condition with but few eggs dislodged. From each piece I secured from eighteen to thirty fine cells and out of the entire lot only a half dozen were lost in mating and introduction. All the young queens were as strong and vigorous as any I ever reared.

In this letter I will not go into details of proceeding to obtain the best results from "Eggs by Mail;" will leave that for a future theme.

With the kind permission of the editor, I wish to thank Messrs. Pridgen, Quiran and Laws for their special acts of kindness and their prompt responses in actual aid in the experiments.

I tell you, Mr. Editor, when the facts are all known and it becomes a general practice for queen breeders (and honey-men too, as for that) to exchange eggs for the betterment of stock, it will be a BIG thing for apiculture in general. Don't you think so, too?

"Swarthmore," Pa., Sept. 20, 1900.

THE CARNIOLAN AGAIN.

Its Superiority Strikingly Shown in a California Apiary.

BY H. M. JAMESON.

I PROMISED to write you something about Carniolan bees. Well, I will say this: Within the last two years I have received Italian queens from six different breeders in the East. These queens were represented in most cases as being very prolific, great honey gatherers etc. They have all had a fair trial, and so far have proven themselves utterly worthless, as compared with the Carniolons. Some of these Ligurians have built up fairly well and stored a little more than needed for their subsistance, while others have remained weak and must be fed for the coming winter. They never leave their hives before sunrise and retire early. In the spring time they are slow to build up in time for orange or other early bloom.

What are the Carniolans doing while these loafers are asleep? Well, I will tell you. In late winter or early spring they start a strong brood-nest on the north side of the hive, and when early flowers come, they are ready with a good force for work. When orange bloom and other great honey-flowers come, they are there with a grand army. They go forth at break of day and work till night-fall. What Mr. Doolittle and others have written about Carniolans in no sense applies to these bees. See editorial comments in *Review* for August, on what C. W. Post, of Canada, has to say about Carniolans. As Mr. Post has it, it is absolutely true of mine. Editor Hutchinson says: "All of this illustrates the great difference there is in stock." Mr. Hutchinson should have used the word race in lieu of stock; but that would not be riding his hobby. Swarming! The bees have shown no more inclination to swarm than have the Italians, though they have stored a surplus of fifty pounds or more to each colony over that of the others.

Some of these fair daughters of "Eetaly" will luxuriate the coming winter on Carniolan white-capped honey.

Large hives! Yes, these black bees must have large hives; and perhaps two eight-frame bodies are not too large, though I believe the Draper barn to be about right. They must have a cool situation. On the 4th of May last, we had a gentle rain throughout the entire day; the Carniolans were out at work the whole day, with not a yellow bee in sight. There was not a day last winter but these bees were at work, and consumed none of the honey stored previously.

We often read of the great loss of bees in the cold States, some losing all their bees. If they would stock up with Carniolans, such fatal results would never occur.

Gentleness. The Italians with me are extremely gentle; while the Carniolans are also gentle, they are not so quiet and more inclined to fly from the combs and sting.

Corona, Cal., Sept. 24, 1900.

OUR FRONTISPIECE.

BY THE EDITOR.

We have pleasure in presenting in this number a most excellent portrait of Mr. J. B. Hall, of Ontario, one of the Dominion's acknowleged leaders in things apicultural.

While Mr. Hall is a very earnest and popular association worker, it is to be regretted that, for some years past, all persuasion and force, in their oft-repeated applications, have proven inadequate to the purpose of eliciting from his pen contributions to the bee-keeping press. This is the more to be deplored when we consider the fact that Mr. Hall's pen productions have a style at once interesting and instructive, peculiarly their own. A more methodical and painstaking bee-master than Mr. Hall cannot be found—nor a more successful one. Too many futile efforts have been made to stealthily remove the "bushel" in which so much "light" is confined to leave any hope for the future in that direction; but, were it not for the profound respect which we feel for this esteemed instructor of our youth, we should not hesitate to suggest the trial of a quicker method of removing it. This might, however, prove equally inaffectual, and we shall neither try nor recommend the kicking plan.

Mr. Hall is a producer of honey, and being such, he says he has nothing but honey to sell. His favorite bee for the production of comb-honey is an Italian-Carniolan cross, of which he has an excellent strain. He is the originator of the thick top-bar and of the wood-zinc excluder; though too modest to assert his right to the honor.

In the conduct of his business, Mr. Hall's operations are governed by attendant conditions and their immediate requirements, from the standpoint of independent reason, and not according to any set of stereotyped rules, as is too frequently the case with bee-keepers. His is, obviously, a case of "the right man in the right place;" and there is ample evidence on every side of the wisdom of his choice in adopting apiculture as his profession.

At the present time a week seldom passes in which we do not have occasion to recall some of the advice and admonitions given with his characteristic earnestness and kindly manner, fifteen long years ago, when he labored to eliminate the erroneous ideas which we had previously acquired, and to establish in their stead a clear understanding of what then appeared to be a most obscure subject.

LAYING WORKERS.

Successful Result of an Experiment in their Treatment.

BY W. T. STEPHENSON.

In response to your call for short articles, I will tell you of an experience I had with laying workers, which may interest, and possibly benefit the readers of The Bee-keeper.

This is how it came about: I ordered two queens from a Southern breeder. Both were successfully introduced and in due time commenced to lay. But one of the queens was almost worthless and was superseded in a week or so. The bees then started queen-cells while, in the meantime, another queen had been ordered. For fear of hatching, I removed the queen-cells; but being busy with other work, I neglected my now hopelessly queenless colony. When the queen arrived and I started to introduce her, what should I find but a lot of laying workers filling every accessible cell with from one to six eggs. I was afraid to risk my Italian queen in this colony, so I hunted up the crossest colony of hybrids in the yard and gave the Italian queen to them and took the hybrid to experiment with. I made a Hutchinson wire-cloth introducing cage, and then took a comb of hatching brood and caged the hybrid queen upon the comb. Soon the cage was full of newly-hatched bees, and the queen had used the cells for eggs, as they were vacated by the young bees. Some of the workers were even daring enough to lay on the comb the queen was on. Her chances of reigning supreme in that colony looked slim, indeed. I left her caged for about a week, when I knew that she had the scent of the colony. Toward night I went to the hive very quietly and gently lifted out the comb on which the queen was caged, and as gently removed the cage containing her and her adopted children, using as little smoke in the transaction as possible, so as not to frighten the queen.

I expected to see her majesty promptly dethroned; but, lo, and behold, she was at once surrounded by a lot of loyals. This was the last of the laying workers, as they closed up business at once.

Dr. Miller always advises uniting the colony with some other one. Now, if this method always cures, it is much better.

New Columbia, Ill., Sept. 16, 1900.

WHO OWNS THE BEES?

Milldam, N. B., Sept. 22, 1900.

Editor American Bee-keeper:—If you will decide the following question you will confer a favor:

First, I would like the readers of your journal to know that I am an amateur in bee-keeping—the season of 1900 being my first.

About the 20th of June last I lost two swarms of Italian bees in one day which, so far as I have been able to find, made an almost direct bee-line for McKay's, some three miles distant, across the St. Croix river, into the United States. Some two weeks previous to this time I had sold to Mr. McKay two first swarms; and upon passing his place a few days after I had lost the swarms, I called to get the empty hives from which the said swarms were transferred when delivered. Upon going to his yard, I was surprised to see a few Italian bees robbing, or removing honey from one of the hives. I watched them until I was satisfied that they were coming from the woods, some few hundred yards distant, when I picked up the invaded hives and carried them to his barn, which is about twenty-five yards from their stands. In a few minutes there was not a bee to be seen. I got into my carriage, and in turning my horse around was again surprised to see a swarm—yes, I should say two or three swarms; the air was black with them—coming up the garden, and making direct for the hives I was to take. In a few minutes they were all in, or all that could get in, for the swarm was so large the hive would not hold them. I put the hive back on its old stand. In ten days' time this hive sent out a large swarm. Did that swarm have two queens, or did they raise one in that time?

There are no Italian bees within twenty miles of this place but mine. I imported five hives last spring. There is no doubt that the swarm evaded the customs and Uncle Sam received no duty. It would be a good thing for the Chinamen if they might as easily do so.

Now, Mr. Editor, it is for you to decide who owns the bees and who pays the duty. I would like to know and ask you to decide. R. L. Todd.

[It is not improbable that our correspondent's surmise in regard to two queens having entered the hive together is correct. That they reared a queen in ten days is out of the question. That is, if we are to understand that the hive contained no brood at the time of entering it, which we presume was the case. Our correspondent has answered his own question in regard to the duty. As to who owns the bees, it will doubtless depend largely upon whether the matter is to be considered from a legal or moral standpoint. The latter is decidedly to be chosen in preference to the former; and if Messrs. Todd and McKay are inclined to come together on this ground, attendant condition will render the matter easily adjusted. If, as our correspondent says, there are no Italians within twenty miles of their location, it is very probable that the swarms issued from the hives of either one or the other of the parties directly interested. An inspection of the colonies in each yard at the time would have decided the matter. If the evidence is in favor of Mr. Todd's ownership, he should have his bees; though there is little to encourage the thought that they might be recovered by law, and their extradition would, most likely, be attended with some difficulty. Better get together, talk it over, remember the golden rule, and decide the matter among yourselves, and not rely upon the decision of "a committee of one" two thousand miles away. Evidence is too meager.]—EDITOR.

MOVING BEES.

Their Preparation for Long Hauls and the Winter Repository. Setting Out in the Spring, etc.—Details of the Method Practiced by a Successful Operator.

BY F. GREINER.

FOR many years in the past it has been our custom every spring to take a part of our bees to other pasture fields and then in the fall, or at the approach of winter, to move them back home. My object in bringing them back in the fall has been that I might winter them in my bee-cellar. This I considered less expensive than to winter on the summer stands, making it necessary to provide winter cases and packing.

Moving many colonies back and forth, I have never had serious mishaps—at least never the loss of a colony or any broken combs to lament. I have had hives leak bees occasionally, but I have learned to avoid this. It may be of benefit to some of the readers of THE AMERICAN BEE-KEEPER to know just how we managed, so I will tell briefly our *modus operandi*.

To begin with, I select only such colonies as are in a prosperous condition, but reject over-populous colonies. I desire to have all the colonies of an out-yard as near as possible of uniform strength; leaving the strongest at home prevents undesirable May-swarms and their loss.

The majority of my bees are on the old style hanging or swinging frame without spacers. I generally make all frames of this kind stable by pushing little short sticks of about half the length of the end-bars of frames and of proper width and thickness in between the frames. Often I do this only at one end of frames, which is sufficient in most cases. I formerly used these sticks of full length of the end-bars of frames, but soon found that shorter sticks answered as well and were easier to adjust and remove. Hives that had their frames not disturbed during the honey season can later be moved on spring-wagons without any further precautions; brace-combs holding the frames securely from swinging. All hives with fixed frames are, of course, always ready on short notice, which feature makes such a hive of especial value to those who do much moving.

Having made the frames secure, the next thing is to arrange for proper ventilation. When there is no brood in the hives as, for instance, in the late fall, a wire-screen over the entrance provides all the ventilation needed; but in the spring, when the bees are much more active, a screen over the whole top of the hive will be necessary. I have quite a quantity of such screens on hand and ready for use. Each consists of a frame the size of the hive and made out of strips of lumber one inch square. Regular wire-screen is nailed over it. These frames are secured to the hive each by two wire-nails, which are not quite driven home, but left sticking out far enough so they may be drawn easily by a claw-hammer.

My hives all have loose bottom-boards. It is most essential to have them fastened solidly. The VanDusen hive-clamp, which I use, is not sufficient unless each bottom-board is provided with dowel-pins, one on each side. A small wire nail, driven from the under side through the bottom-board and entering the lower edge of the hive by about three-eighths of an inch, is sufficient. When drawn down by the clamp the hive cannot shift back or forth on its bottom-board.

We now have our hives in shape to load. The next thing for consideration is the wagon. Bees and honey should always be moved on springs; for heavy loads an ordinary lumber-wagon with a good set of springs, is all right. For long distance moves I would load as many colonies upon a wagon as could be carried on it with safety. This would necessitate building a suitable rack. I do all my moving with a one-horse wagon and I do not tier up my hives. Eighteen colonies will make a good load for horse and wagon. I have built a long, low wagon-box and fitted on a light, simple rack whereon I place the eighteen colonies without difficulty. The hive covers and other fixtures may be placed in the box under the hives when it is advisable not to leave them on the hives.

Selecting cool days, bees may be moved in day-time just as well as at night; but during hot weather, as, for instance, when taking bees into buckwheat pasture, I prefer a moonlight night, and I aim to get the bees onto their new stands by the time they would otherwise be ready to commence their day's labor.

While discussing the subject of moving bees, putting them into winter repositories or cellars, would also be a proper one for consideration at this time.

In order to have this job go off pleasantly, I prefer leaving on the bottom-boards and closing up the entrances while moving to the cellar. I rather prefer leaving the bottom-boards on all winter, but place a two-inch rim, the exact size of the hive, under each brood-chamber. I do this several weeks before it is time to cellar the bees. These rims answer another purpose: When moving bees during hot weather, I fasten one of them with the screen-board, as mentioned before, on top of each hive, giving the bees a chance to cluster in the space thus formed.

To reduce the size of the entrance, in particular during spring, I use a strip of pine lumber one inch square. It is exactly as long as the entrance and when turned a quarter way and pushed against the hive tight, closes it up and prevents any bees from escaping. These blocks need no fastening, for we handle the hives carefully. When the time has arrived to take the bees to the cellar, which is about the last week in November, I hitch myself to my spring wheelbarrow. This is covered four or six fold with an old, clean, wollen horse blanket, which acts as a spring itself and lessens any jar occurring from placing the hives thereon. Two colonies are loaded on at a time and wheeled up to the cellar door, or right into the cellar, if same is nearly on a level with the ground. It is pretty hard work for one man to carry a large number of hives into the cellar alone; but I found it very difficult to procure suitable help for such work. People not familiar with the nature of bees do this work not to my liking. The whacking, knocking, slamming and banging around hives raw hands indulge in, has so completely disgusted me that I have done all such work myself alone for years. The main point to be watched is, to set the hives down *without a jar*. This is not always so easy especially when tiering up four high and placing the three and four hives in position, but I accomplish it by pushing a little platform or a box of the right height against a stack of two hives. Upon this I step with the next hive, holding it against myself. I am then in a favorable position to place the third hive upon the second or the fourth upon the third. After all the bees are in, I give them half an hour's time to become quiet, when I go in and remove the entrance blocks and close up the cellar.

It should be neither too warm nor too cold when taking bees to cellars. A temperature as near the freezing point as possible is good. Sometimes sharp freezes occur before we take in our bees and during such the hives are apt to freeze to the stands. It would not be advisable to pry them apart when frozen together solidly; to wait for a thaw, we would many a time miss the best opportunity. To avoid this freezing down as much as possible, I go over the yard some time previous when the hives are not frozen and prop them up with nails or little wooden wedges. They are then in shape to go in any time when the other conditions are right.

Hives should also be dry when taken into the cellar; although I have once moved them in when they were thickly covered with snow and I could use a hand-sled to move them on. They wintered fairly well that winter, too.

The taking our bees out of the cellar is practically the same as taking them in; but I do not find it necessary to close the entrances. For several reasons I prefer the night for this work, and I take all colonies out at one time. I generally place each hive upon the same stand it had occupied the season before, but do not think that this is strictly necessary.

I very seldom take my bees out of the cellar before pollen may be had from the elm.

I have something more to say about moving into buckwheat, but will wait till this would be more seasonable.

Naples, N. Y., Sept. 29, 1900.

A GRACEFUL ACT, WELL DESERVED.

THAT our younger readers may more fully appreciate the picture which graces this number of THE BEE-KEEPER, we have pleasure in reproducing a few paragraphs from the *Canadian Bee-Journal's* report of the meeting of the Ontario Bee-keepers' Association, held at Toronto, in December last. Mr. McKnight's motion was evidently a spontaneous outgrowth of that same sense of obligation and high esteem to which every man is subject who has been intimately associated with the gentleman whom he sought to honor. It is a sense of obligation and esteem which, as we know by actual experience, constantly increases by long and very intimate association.

Mr. McKnight: There is a little matter which I would like to bring up. We have a gentleman with us during this convention who is here only by the solicitation of a great many members. This Association has been a great success right from the first until now, and that is something creditable. There have been men who have done more than Mr. J. B. Hall has for this Association in a purely business way; but I want to tell you there is not a man belonging to this Association now, or ever did belong, who has made its meetings so interesting and practical as our friend Hall. (Applause). He has been the life and soul of our Association meetings for the last nineteen years. Like myself, the world is largely behind him; he has not many years to be here, and I think it would be a graceful thing to do anything in our power to show our appreciation of the value of his services. Although he does not say very much outside of this Association, Mr. J. B. Hall is known all over the continent of America. I would like to move that this Association make J. B. Hall a life member—that is all. (Loud applause). I would like, if it were in my power, to confer some higher honor upon him, but I know he does not want it; and I am not sure whether he would appreciate even this; but I know it is our duty to show Mr. Hall some mark of the appreciation of the valuable services he has rendered to the bee-keeping interests of this province. I hope this will not be made a precedent; it would be very little honor if all the old men were associated with him; I would like to see Mr. J. B. Hall the one and only life member of this Association during my life-time.

Mr. Brown: I have very much pleasure in seconding Mr. McKnight's motion. I can endorse every word he has said with reference to Mr. Hall.

The motion was carried by a rising vote, and the singing of "He's a Jolly Good Fellow," after which Mr. Hall briefly and suitably replied.

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Editorial

We are sending the premiums this month to "Swarthmore," Greiner, Jameson and Stephenson.

It is said that bee-keepers and honey-production in Ireland are increasing at the rate of thirty per cent. a year.

The *Bee-keepers' Guide* is undergoing so thorough a revision at the hands of its author, Prof. A. J. Cook, of Pomona College, Cal., that it is thought this popular work will enter upon the new century at the head of the list of standard books for bee-keepers.

Mr. E. R. Root has for some time past been busily engaged in thoroughly revising every part, not re-written last year, of the A B C of Bee Culture. The 1899 edition of the "A B C" was very full and complete; but it appears that the new edition is to be a marvel of completeness.

General Manager Eugene Secor, Forest City, Ia., of the National Bee-keepers' Association, is a candidate for Congress. Bee-keepers would not pause to question the ticket matter, if they were permitted to cast their vote for this scholarly champion of bee-keepers' rights.

Gleanings gives in its issue of September 15th, a nice picture of the granite monument recently erected in memory of Rev. L. L. Langstroth, at Dayton, Ohio. The shaft was erected at a cost of $300, which amount was subscribed by admiring bee-keepers throughout the world.

A Philadelphia correspondent says New York and Pennsylvania honey—white clover, in square one-pound sections—is displayed in that city, quoted at "twenty cents per comb." Buckwheat at sixteen cents. "But very few tall sections are in the Philadelphia market," says our correspondent.

"Editor Jolley" is an American authority on bee-keeping matters now quoted by the foreign press. This insinuation may be responsible for the protracted silence of our esteemed contributor of times past. If he will favor our columns with more of his interesting articles we will set the matter aright before the world.

The *Australian Bee Bulletin* says. "Paralysis is mostly a result of close breeding to get color." Its presence in apiaries of black and hybrid stock, the breeding of which has been left entirely to the bees themselves, as well as in apiaries having a score of different strains of Italians and their black crosses, does not bear out this theory.

The queen is the hub and spokes of the apicultural wheel. Continued success without good queens is impossible. Centered in her there is not only the question of ability to keep her colony up to the necessary standard of strength, but the whole responsibility for the numerous traits of character inherent in her progeny, which decides the fate of the enterprise.

The editor of *Gleanings* has undertaken the task of measuring the tongues of bees which may be sent to him for that purpose. This is done with a view to ascertaining their variations in this respect. On September 1st he reported that the lengths varied from fifteen-hundredths of an inch to twenty-hundredths. When Brother Root gets around to measure the tongues of the progeny of the $200 queen, which he recently discovered in his own apiary, it is anticipated that these figures will materially lengthen out.

During the past summer a veritable epidemic of Belgian hare fever swept over this country from ocean to ocean. It was thought that the bee and hare industries would form a harmonious combination which would enable us to retire much earlier in life than we would otherwise be able to do. At this writing it appears that the greater part of its victims are convalescent, and laying plans for the addition of more bees or a poultry yard as a more promising acquisition to their stock.

Sixteen out of twenty-one colonies totally annihilated, over nine hundred pounds of honey devoured, and 376 combs destroyed, is the record of a little out-apiary belonging to the Southern Bee Company, near Ft. Pierce, during one week in October. The black bear undertook the management of this yard during the temporary absence of H. E. Hill, with the above results. This is the same apiary which the hurricane of 1899 handled to its liking for several days. We have photographs of the ruins which will appear in The Bee-keeper in due time.

The *Canadian Bee Journal* gives its readers this bit of information:

"To remove propolis from the hands rub well with lard, which loosens the propolis; wash off the lard with soap and water and the hands will be clean." Here is another "kink" from the same journal: "When the nozzle of your smoker becomes clogged and sticky with soot, squirt in with an oil can a few drops of kerosene oil and light with a match. In a few minutes the soot will be burned to a blister, when it can be readily scraped off with a knife, and your smoker will be as good as new."

Mr. H. G. Quirin, Parkertown, Ohio, suggests the following remedy for ants, where they trouble in the apiary: "One-half pint crude carbolic acid, half pint turpentine; mix with half bushel air-slacked lime; let it stand a day or two and scatter on the ant-hills, or where they may bother." This mixture may prove valuable where the ants are of the "ant-hill" variety and not scattered over the whole country, as in South Florida. In this locality it would be a waste of time and material to mix less than a thousand bushels of the preparation at a time, or to plaster less than a half-mile square of the earth's surface with it.

W. S. Hart, of Volusia County, Fla., writes: "Your predictions as to prices of honey seem destined to be fulfilled, judging by present quotations and the eager search for a market supply. If you still hold your crop you will probably profit by your foresight." Mr. Hart reports an increase of twenty-four colonies from his seventy-eight, and a crop of 6,250 pounds of honey, with every colony now in prime condition and a good supply of winter stores. Our own apiaries have been run more for queens than for honey during the past season; hence the price of honey will not materiallly affect our personal interests.

Our thanks are due Mr. Adolph G. Horn, Dolgeville, N.Y., for a nice photo of a large swarm of bees, clustered on a tree in his apiary. The picture is rendered doubly interesting by the information that the swarm includes one of THE BEE-KEEPER queens, of which he writes: "The queen received of you in May I put in a hive which I had divided a week before, using half of the brood-combs. I have taken forty-eight pounds of comb-honey from the hive, and on August 4th it cast this swarm. It is a big one, too." We shall prize the photo very much and are pleased to know that THE AMERIAN BEE-KEEPER queens are giving such a good account of themselves.

In the October number of THE BEE-KEEPER, page 193, we spoke of the use of dry sulphur as a cure for paralysis, and noted the detrimental effect of the practice upon the combs thus treated. Mr. O. O. Poppleton, the originator of the plan, advises us that he has now in operation a series of very thorough experiments by which it is sought to obviate this one objection to the use of sulphur. It appears that the bees only are sprinkled after having the brood-combs removed. Other new ideas were revealed also, which bid fair to be productive of much good in the handling of colonies diseased in this way, but it is too early to speak with assurance, Mr. Poppleton thinks.

A great deal has been said recently in some of our exchanges regarding a new method of introducing, by the use of a piece of perforated cardboard over the candy in the cage. Some appear to think the removal of the cork resulted in a too early release of the queen. The new idea of using perforated cardboard instead of allowing the bees immediate access to the candy, was hailed by some as a great thing. At this writing numerous reports are coming in which show that failure more often results through the use of the new plan than with the older method. It is a pity that facts in practice will continue to so persistently array themselves against beautiful theories.

President Chantry, of the South Dakota Bee-keepers' Association, has devised a very convenient mailing and introducing cage: A piece 1½x3½ is cut from 5-16 stuff through which three one-inch holes are bored, and the sides covered with section-box material, nailed securely at its edges. One of the end holes is continued through the side-piece and covered on the outside with wire-cloth. On the reverse side a knife is run obliquely lengthwise, from end to end through the piece of section inside of the row of nails. This releases a ⅛ strip through the center, which serves as a sliding cover, and is simply pushed far enough to expose the candy sufficiently to admit a bee, when introducing. It works like a charm, as we know by experience in handling several of Mr. Chantry's choice queens during the past season.

A local item from the New Smyrna (Fla.) correspondent in the Jacksonville *Times-Union*, of Oct. 12, 1900, notes the sudden death of Mr. John Craycraft, a former highly esteemed contributor to these columns, who dated his communications during 1898 from Astor Park, Fla., where he and Mrs. Craycraft then lived. We are without information regarding this lamented friend farther than that he was the father of Mr. Fred. Craycraft of Havana, Cuba, a young bee-keeper for whom the Spaniards destroyed nearly a thousand colonies of bees during the late war, and to whom reference has frequently been made in THE BEE-KEEPER in the past. The correspondent states that Mr. Craycraft dropped dead while working over a hive of bees in his apiary at Hawks Park, Fla. We condole with the bereaved ones.

FIRST CARNIOLANS IN CANADA.

Mr. Jameson's article on the Carniolan in this number, together with the splendid picture of Mr. J. B. Hall, suggest the reproduction from the *Canadian Bee Journal*, of a comment at the last meeting of the Ontario Association, by the latter gentleman, which has a bearing upon Mr. Jameson's subject. Mr. Hall said:

"I am the first man that had Carniolan bees in Canada. I purchased a Carniolan queen. She was eighteen days in the mail-bag, and when I received her there were three live bees with her. We looked at her and came to the conclusion that she was not worth much; however, we got her safely introduced and she lived about six weeks; but during that time we raised some queens from her. I have never had a better lot of bees than the daughters of those queens—never, for quantity and quality of honey. Of course, we kept them for a couple of years, and we thought we would like to have a change, and we received three importations after that; but they were not worth the powder to blow them away. I like Carniolan bees mixed with Italians. My bees are that mixture. Of course, you cannot control these young ladies. They go out visiting; and therefore, if I have any other blood, it is by accident, not from design.

Well does the editor of The Bee-keeper remember the arrival of that "first Carniolan," and the early demise which followed. Also the tender care bestowed upon the first generation following this initial importation. We are therefore much interested in this account of the imported Carniolan's offspring, coming, as it does, fifteen years later.

HERE'S A DOLLAR FOR YOU.

Peculiar and mysterious things sometimes occur in the experience of the observing bee-keeper. The following incident was recently told in our "sanctum" by a reputable neighbor who, besides having successfully kept bees himself, was an associate of G. B. Jones and C. G. Ferris well known to the fraternity:

Our neighbor had been taking off section-honey and was brushing the few adhering bees from the sections in the honey-house, and allowing them to escape through an open window. Attached to the ceiling of the room were strips of wood upon which surplus combs were suspended. These combs were all old, dry ones, and had been for weeks hanging in their place, overhead. Upon completion of the day's work the said bee-keeper observed a number of bees clustered between the combs above, but paid no particular attention to the matter. Several days later, however, he noticed that the bees were still there; and accordingly instituted an investigation. The result was that he found a queen-cell containing an egg. A miniature colony of bees apappeared to have established itself among the combs.

What was the cause of the bees taking up their abode such a short distance from their own hive?

Where did the egg come from?

Another peculiar occurrence is related by Dr. Miller, in *Gleanings*. This is what the Doctor says of it:

"Some new freak is always coming up among the bees. Lately I took a comb out of a nucleus, and found it regularly supplied with eggs except a cluster of cells at one end, each containing five to ten eggs. 'Laying workers,' thought I. But all were worker cells; and directly I spied a fine-looking queen. A few days later it was the same thing."

What was the probable cause of this action upon the part of the queen? What treatment should be administered to overcome this waste of eggs and brood?

There are several hundreds of amateur bee-keepers on our list who will not receive this number in a red wrapper. The one of these who first mails to the editor of The American Bee-keeper a reply to all four of the above questions, and answers them all correctly, according to the judgment of the editor, will receive in return One Dollar ($1.00).

BRIGHT YELLOW BEESWAX.

Some months since, an exchange observed editorially that the secret of getting wax of a bright yellow color was to allow it to cool slowly. The Bee-keeper for September (page 171) noted the item, and suggested that blank space, in a journal which pretended to instruct its readers in practical apiculture, would be preferable to such an erroneous statement. It appears that our comment, as seen by the *American Bee Journal*, is somewhat ambiguous, and we are requested by our contemporary to rise and explain. After quoting our remarks the *Journal* inquires:

Now, will Editor Hill please tell us why? Is it that the information is of so little value that it is a waste of space, or because there is no bee-keeper who does not already know it?

Yes, we will try to tell why; though at a loss to understand why such a request should be made by "the oldest bee-paper in America."

After a body of wax has been melted and permitted to remain at a high temperature for a sufficient length of time to allow the coarser particles of foreign matter to settle to the bottom, its color cannot be perceptibly affected by the length of time occupied in the process of cooling. If the wax is the product of new comb—comb in which brood has not been reared or otherwise discolored—it will appear more nearly white than yellow; and whether the cooling process occupies fifteen days or fifteen minutes, it will not be "bright yellow." Wax, such as ordinarily accumulates in the apiary—scrapings from top-bars, odd bits of comb, burr-combs, hatched queen-cells, etc., if rendered in a cleanly way, usually yields bright, yellow product. When it has been melted a sufficiently long time for the particles to settle, it may be set out in a snow storm, or into the refrigirator, and it will still be the some "bright yellow wax" that would result from a slower process of cooling. Wax of a bright yellow color sometimes results in rendering combs that are black with age; but more frequently a product is obtained which approaches brown rather than yellow. The exact cause of this variation in color is yet an open question. When the darker or stained wax comes from the extractor it might be placed in a room the temperature of which could be so controlled that it would not congeal within a week, yet it would not be "bright yellow." The acid treatment must be resorted to to produce this desirable color. In brief, "cooling slowly" has nothing to do with the "secret." The beginning of congealation is the end of the purifying process; if, perchance, that has not already been reached, as a result of the liquid state having been continued a sufficiently long time for matter of greater or less specific gravity to have separated itself from the body of the wax. No, we did not think that all bee-keepers knew that cooling slowly would produce bright yellow wax. We thought they knew better.

LITERARY NOTES.

THE WAY TO WIN STRENGTH.

The Romans won their empire by attacking their enemies one by one. Besides this, they did not attack a new enemy until they had conquered the old enemy. They went farther still and, like the English in conquering India, used their late enemies as weapons against their new enemies; and this is what we should do in learning and practicing games and athletics. It is of little use to try to conquer the whole empire at once. First conquer a part and make it your own. Then proceed to a second part and conquer that; and, if you can, let the parts which you have already conquered help you to conquer fresh parts.—Eustace H. Miles, in the Saturday Evening Post.

KITCHEN WEIGHTS AND MEASURES.

Four teaspoonfuls of liquid make one tablespoonful.

Four tablespoonfuls of liquid, one gill or a quarter of a cup.

A tablespoonful of liquid, half an ounce.

A pint of liquid weighs a pound.

A quart of sifted flour, one pound.

Four kitchen cupfuls of flour, one pound.

Three kitchen cupfuls of cornmeal, one pound.

One cup of butter, half a pound.

A solid pint of chopped meat, one pound.

Ten eggs, one pound.

A dash of pepper, an eighth of a teaspoonful.

A pint of brown sugar, thirteen ounces.

Two cupfuls and a half of powdered sugar, one pound.—November Ladies' Home Journal.

THE YOUTH'S COMPANION CALENDAR.

More thought and expense than ever before have been lavished on the Calendar which the publishers of The Youth's Companion will present to every one subscribing for the new volume for 1901, since it is to be a souvenir of the paper's 75th year. It is an exceptionally attractive Calendar, and has been designed and lithographed for The Companion exclusively. The central figure of the Calendar is an ideal portrait of a Puritan maiden of Plymouth, and the twelve colors in which the Calendar is lithographed reproduce the delicate coloring of the artist's original painting with perfect fidelity.

After the usefulness of the Calendar is past, the portrait of Priscilla can be cut out and framed and preserved as a beautiful household ornament.

This Calendar, which is sold to non-subscribers to The Youth's Companion for 50 cents, will be given to all new subscribers for 1901, who will also receive, in addition to the fifty-two issues of the new volume, all the issues of the paper for the remaining weeks of 1900 free from the time of subscription. Illustrated announcement of the volume for 1901 will be sent free with sample copies of the paper to any address. THE YOUTH'S COMPANION, Boston, Mass.

PROGRESS—THE LAW OF MODERN CULTURE.

Once caught on the wave of progress, its attraction is as irresistible as the force of gravitation. Modern Culture makes another new departure with the November number in the introduction of original verse. Nothing could be daintier or timelier than "Carmen Cordis," by Alice E. Hanscom, or "Indian Summer," by Edmond Vance Cooke, two Cleveland poets, who are achieving distinction in the difficult field of verse. Another attraction in the magazine is an unpublished poem by Francis Scott Keye, the author of "The Star-spangled Banner," "Recollections" of whom are contributed by his granddaughter, Anna Key Bartow "The Camera in Science, Art and Pastime" is the inviting title of an article by Juan C. Abel, editor of The Photographic Times. "A School for Lovers" is the first installment of a clever story by Ellen Olney Kirk, the gifted author of "The Story of Margaret Kent." Two handsomely illustrated articles are "Three Masters in Art—Innes, Martin and Vedder," by N. Hudson Moore and "Some Phases of the American Drama" by Leon Mead. "The Austro-Intersprachen War" is well described by Edwin L. Maxey, D. C. L. "The Lawyer and the Corporation" is the theme of a thoughtful paper by Boyd Winchester, L.L.D. An interesting account of "The American Gordon," Frederick Townsend Ward, is given by Thomas R. Dawley, Jr.; and the "History of American Caricature" is told by Ingram A. Pyle. On the whole, this number of Modern Culture is the brightest, most attractive, most thoroughly American magazine the publishers have yet given us.

* * *

Modern Culture ($1.00 a year) with The American Bee-keeper, $1.00 a year.

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

NEW YORK, Oct. 17, 1900.—The demand for honey in all grades is good while the receipts continue light, at the following prices: Fancy white comb, 15 @ 16c.; No. 1 white comb, 14 @ 15c.; buckwheat comb, 10 @ 11c.; white extracted, 7c.; buckwheat extracted, 5½c.; beeswax, 28c.

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CHICAGO., Oct. 17.—There is a fair demand and the stocks are moderate. Fancy white is scarce and the supply of extracted white is short. Prices are, fancy white comb, 15 @ 16c., and off grades 13 to 14c.; light amber, 11 @ 12c.; dark 9 @ 10c. Extracted, white, 7½ @ 8c.; amber, 7 @ 7½c.; dark 6 @ 6½c. Beeswax is in good request with a very light supply at present. R. A. BURNETT & CO.

BOSTON, Oct. 26.—Our honey market continues strong with light receipts. Fancy 1-lb. cartons. 17c.; A No. 1, 15 @ 16c.; No. 1, 15c.; No. 2, 12@13c. Extracted, 7½ @ 8½ according to quality. Beeswax steady at 25 @ 27c. We believe these prices will be maintained throughout the season.

BLAKE, SCOTT & LEE.

BUFFALO, Oct. 16.—While the demand for honey is excellent—the best for years—the supply likewise is the lightest known for many seasons. Price of fancy comb, 18c. per lb.; extracted, 6 @ 7c. Pure beeswax is always in good demand, and supply usually light. Prices, pure, 28 @ 32c. Buffalo now wants honey; all grades will sell, but fancy mostly wanted. Dark etc., ranges from 14 to 8 and 10c.

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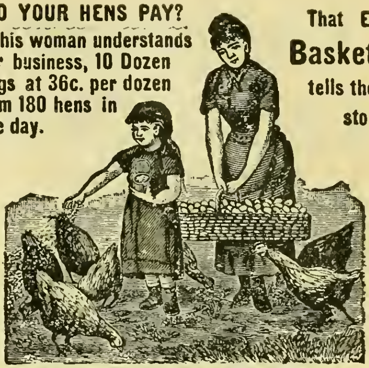

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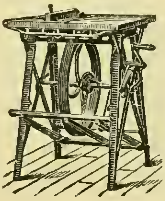

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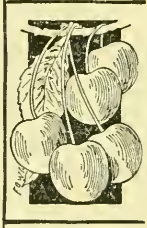

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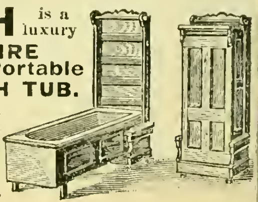

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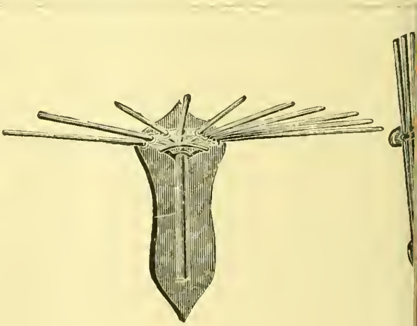

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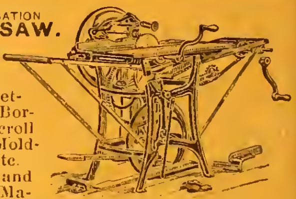

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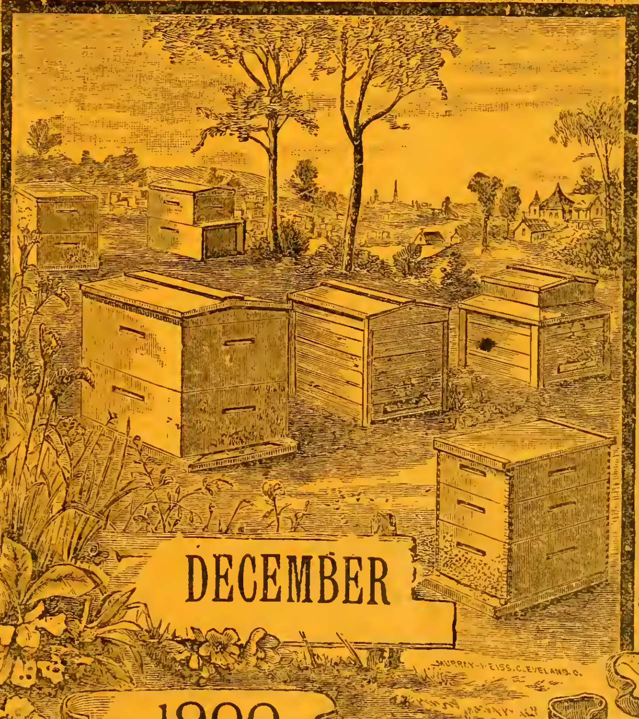
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DECEMBER

1900
Vol. X
No. 12

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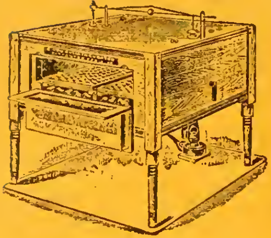

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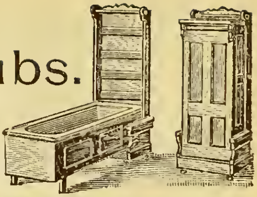

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MR. O. O. POPPLETON.
(See page 233.)

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

QUEEN-REARING NUMBER.

Vol. X DECEMBER, 1900 No. 12

CONFINING BEES FOR CELL-BUILDING.

Experiences and Suggestions from the Originator of the Plan.

BY W. H. PRIDGEN.

REPORTS in the different journals go to show that but few bee-keepers are sufficiently expert in imitating natural cells regardless of the method employed in the preparation of the larvæ to meet with uniform success in having them accepted, unless a more intense desire for a queen is brought to bear than exists under the natural impulse, or conditions that give the most satisfactory results in cell-building. Immediate acceptance is essential to the production of first-class queens; as a larva once neglected is slower in development, and never results in such. Realizing this fact, like many others, the writer had to adopt some plan of overcoming the reluctance on the part of the bees in receiving promptly the larvæ given, and first gave them to bees made broodless and queenless, by taking away the queen and a day or two later, the brood. as recommended by others. This proved to be too slow. and finally the brood and queen were both taken away at once. with the result that the bees had to be confined to prevent desertion, by placing a screen at the entrance of the hive, that turned all in and none out. Three or four hours later prepared cups were given and all were promptly accepted.

Inasmuch as confined bees would accept the cups, all that was necessary was to shake the bees from several combs of a normal colony into a hive containing combs of honey and pollen and provided with a wire-screen bottom as a ventilator, was the manner of reasoning which was put into practice with satisfactory results as to the acceptance and shaping up of the cups, but was rather fussy and slow. in that the queen had to be found to avoid shaking her off into the hive with the cell-starters and the bees had to be shaken or brushed from the combs into their hive after the cups were worked on a few hours and given to other bees to be completed. The next step was to use the cell-builders over an excluder. after all of the brood in the upper story was sealed. by simply placing the upper story on a stand with wire-cloth bottom and shaking the bees from a few of the combs to cause the excitement that follows rough handling, in search of the queen. and found that such bees would accept almost any number of cups in from four to six hours, and could be placed back over the excluder to complete them. Now a colony is kept for this part of the work with two stories above the excluder, with a laying queen below: and while the combs from which all the brood has hatched, are replaced with others containing brood, from time to time, both stories never contain unsealed brood at any one time, and the one is placed on the ventilator that contains none. When this is done, a comb, containing water, is given; as many spaces between the combs provided as batches of cups are to be given; the bees shaken from some of the combs in the hive left above the excluder into the one of cell-starters and the latter securely covered to prevent the escape of the bees.

Do this early in the day; four to six hours later give the prepared cups and just before night the cups can be given to any bees prepared for cell-building, and the queenless bees placed back over the excluder by simply handling the hive.

The plan here given has been in practice for two seasons with satisfactory results.

Of course, some of the bees escape when the hive is opened to insert the cups, but this has not proven to be a serious matter, as with the arrangement given, they are attempting at the time to escape at the bottom, and by having a cloth between the frames and the cover, it can be gently rolled back and the bees slightly smoked down until the spaces are reached. Am glad to note that the editor has contrived a plan for overcoming this objection.

Creek, N. C.

QUEEN-REARING AND QUEEN-BUYING.

From the Standpoint of a Honey Producer.

BY F. GREINER.

THE average bee-keeper needs a few queens from day to day; some days he may not need any at all at least so I find it in my experience. Accordingly I start a new batch of queen-cells every three days. A colony nearly ready to swarm, or one about to supersede their old queen are just the thing to rear queens. If a colony of this kind is deprived of the queen and is given a frame of brood every four or five days, quite a number of batches of cells may be built by it, and I think all the queens thus reared will be good.

As to the artificial cells, it matters little of what material they are made: the shape also may be varied considerably. One may form them of those lumps accumulating along the edges of real old combs. Of course it will facilitate the work if the cells are made as advised by Doolittle. I use a little six-toothed rake with teeth about one inch apart, left in a dish of water for a while so as to become saturated, then dip into melted beeswax or resin and beeswax. I prefer to make the cups rather shallow and thick at the edges, dipping them about the same depth each time. There is no use having the cell-mouth thin and feathery. Cells made heavy can be handled roughly without being in any way mutilated. They can be made quickly and I hardly think there will be any need of their being offered for sale. The bee-keepers can make them so easily themselves.

Small larvæ, about twenty-four hours old, are easily transferred with a fine camel-hair brush and the royal jelly may also be distributed and placed into the cells by it. These are all very simple operations and quickly performed. By means of the little brush I am enabled to remove and transfer larvæ from drone and worker cells without tearing down the side walls of the cells. It requires a steady hand and sharp eyes, and it may be easier performed by first cutting down the cells.

If I have no royal jelly on hand I make the first transfer without it. After two or three days, and for the second batch, a cell of the first lot is sacrificed to obtain the necessary jelly to properly prepare the cups for the reception of the intended queens. The smaller the larvæ, the less jelly is necessary to place in the cups.

In order to raise good queens at a time when honey is not coming in fast, the cell-builders must always be fed liberally and I would again recommend feeding milk strongly sweetened with sugar. We have at this date, July 4, not yet had any honey-flow and I have found it necessary to feed my cell-builders daily, using milk every other day. I thus obtained many well-built, large cells.

To facilitate the work of removing the matured cells from the cell-building colony I have a regular brood-frame so arranged that bars may be slid in, notches being cut in the end bars just in the right places, so that three bars may be used at one time and one above the other. When I remove one bar with the most mature cells, another one with fresh cells takes its place, etc.

A careful record is kept of all the manipulations.

Very few honey-producers can afford to buy as many queens as they would like to. It seems the same story as it is with the strawberries: We would like to use a good many, and the only way to have either strawberries or queens, and have them plentifully, is to raise them ourselves. It is also nearer my notion to have these things fresh. Strawberries nor queens can be expected to be any better for having traveled over rough roads for several hundred miles; and so I think it will be more profitable to raise the larger part of our queens ourselves.

That we must procure new blood from time to time goes without saying. We may either buy a number of tested or even untested queens each year and then select the best from them; or we may purchase regular breeding queens, the best that money can buy.

Naples, N. Y., July 4, 1900.

* * *

Modern Culture ($1.00 a year) with The American Bee-keeper, $1.00 a year.

CARDINAL PRINCIPLES IN THE PRODUCTION OF GOOD QUEENS.

BY G. M. DOOLITTLE.

VERY rarely, indeed, do bees, unmolested by man, rear queens, only under two conditions. The first, and most general, is under the conditions of natural swarming, and the second is where the bees, realizing that their queen is not keeping the comb filled with brood, as she did when in her prime, conclude that, if they would prosper, their mother must be replaced with a young and vigorous queen. And as I said at the start, it is very rare indeed to have queens reared under any other circumstances—with the bees in a natural condition—than the above. And why? Because, where a queen is lost to a colony, it is at some other time than at a period when brood—in the egg and larval form—is in the combs, and consequently, with the death of the queen comes, sooner or later, the death of the colony. Therefore, it would be well to look into the principles which govern queen-rearing (and have so governed, by the God-appointed way) principles which governed and kept bees at their best, up to the present century, during which century man has made the great advancement which we have today. The principles under which queen-rearing, during nearly six thousand years was conducted, was plenty of bees in the colony, thus securing plenty of nurse bees and plenty of warmth for the best development and growth of the larvæ and pupæ, together with plenty of food, both pollen and honey, coming from the fields. Under these conditions the highest type of queens were generally reared, and in all of our operations at queen-rearing these conditions and principles should be kept in sight if we would succeed in rearing the best of queens. Let me emphasize the matter a little by partially repeating: Nature designed queen-rearing only during a period that honey, as well as pollen, was being gathered from the fields, and we can always consider it safe to go according to the teachings learned by a close observation of our pets, and unsafe to go contrary to the rules and laws which govern the economy of the hive. Consequently, if we would rear queens at any other time than when the fields meet all of the requirements, we must meet with these requirements, by supplying them from the feeder, or in some similar way. But this part of the matter has been gone over many times, and is doubtless familiar to all but the novice in the business. Therefore I will leave it with the few hints given, to touch upon a matter which I am led to believe is not so well understood. Now, when in the state of nature, how did the bees construct the cells or cradles for their queens? The larger part of the writings on this matter would have us believe that the bees enlarged a worker cell containing a larva of the right age for queen-rearing, and constructed a queen-cell over it. But a close observation during the past thirty years compels me to say that bees never do this, when swarming or supersedure are conducted under a normal condition. Well, if they do not do it in this way, how is it done? Always by starting the cell-cup along the edges of the combs, at the bottom or sides, or more frequently in or about some hole or depression of the combs. These cell-cups are made quite heavy at the base by using wax and propolis, and not infrequently by collection of debris from about the hive, till the completed cell is so strong that it will tear the comb apart rather than yield itself to the pressure brought to bear in removing it from its place. Such are very different from queen-cells built over larva, as is the case where the apiarist removes a queen to cause the bees to construct queen-cells, and have much to do with rearing first-class queens. How? Principally in that they are larger and more roomy, especially at the base. Into these cell-cups the queen deposits an egg, whether the case is supersedure or for swarming, and upon the hatching of this egg the larva is surrounded with chyle or royal jelly, so that it spreads out all about it in a crescent form, the larva lying in the centre. As the larva grows the cell is lengthened, and more food supplied, till, upon sealing over, the cell is nearly half full of royal jelly, and that in shape where the larva can reach its food easily during all the time it is spinning its cocoon, and till it ceases to eat more, when passing into the pupal form. If we examine one of these cells immediatelely upon the queens' emerging, we will find a lump of royal jelly nearly or quite as large as a pea, remaining in the bottom of the cell, and that in a shape of a crescent, showing that the queen was not cramped at all when eating her last meal as a larva. Now, look at the base of a queen-cell built over a worker cell, or from a strip of worker comb, having the cells cut down, and every other larva killed with the brimstone end of a match, or from strips of drone comb, as many recommend, and see how the clumsy larva, half larva and half pupa, so to speak, has to cramp itself to get those last meals, or go without; which last meals are the finishing touches, which go to make the difference between the really good queen and the only fairly good. And the cell-cups having the worker base, which are made artifically, have the same objection.

But the editor said I must not be lengthy, so I'll drop that right here, and leave it for food for thought to those who have not thought on the matter before. Lastly, these naturally built queen-cells will be found to be fully one-sixteenth of an inch larger in diameter than queen-cells built over larval on worker comb. From the different forming sticks and cell-cups which have been sent me, I judge that the most of them have been made by measuring the size of the queen-cells built over larvæ on worker comb, for with one exception all were too small. The most of them are only about five-sixteenths of an inch, while three-eights is much nearer the size of the inside of the cell producing a good queen either from natural swarming or from supersedure. It was from natural swarming cells that I made my first forming stick, and if the reader wants to make his stick as it should be, let him make it so it will conform to the bottom three-eights-inch of the best formed natural queen-cell he can find and he will have it just right. There is much more that could be said on this subject, but I will leave it here, hoping that each reader will keep up a constant thinking on the cardinal principles of queen-rearing, until the queen-rearing of tomorrow may reach a higher plane than has that of to-day.

Borodino, N. Y., Oct. 25. 1900.

* * *

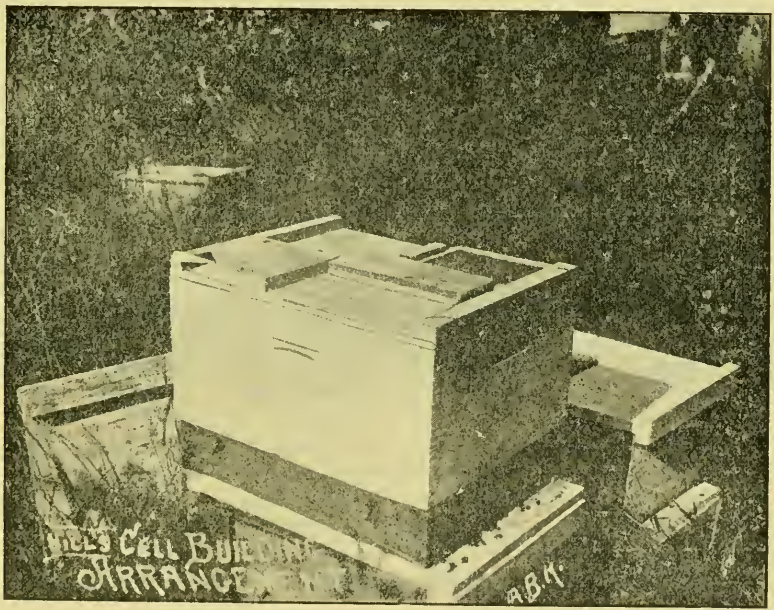
It is false economy to form nuclei with too few bees.

QUEEN-CELLS.

The Use of Artificial Cups in Their Construction—How Given to the Bees Without Opening the Hive, Etc.

BY THE EDITOR.

THE hive in the foreground of the accompanying illustration will clearly show our cell-building arrangement. In the picture the flat lid has been removed, leaving the honey board exposed to view.



Ventilation—which is very important—is secured by setting the hive upon an inverted ventilating screen, such as we use in moving bees from place to place. It consists of a four-inch rim covered with wire-cloth. The three-eighth strips around the bottom-board hold it clear from below, so that the entire bottom of the hive is open; yet no bees can escape. The honey board used is described and illustrated on page 139 of THE BEE-KEEPER for August, 1898. The only alteration necessary is the opening for the insertion of the cell-cups, hereinafter described.

A permanent feeder is attached to all honey boards, and is shown at the left, having the lid turned aside to admit of filling with honey. At the right, on the opposite side, is the record slate, which is supported by a groove in the cleat at one end and a grooved block at the other. This slate is readily removable from the side, and when record has been made is simply slipped into the grooves. Neither the slate, feeder nor cell-box protrude above the level of the cleats, so that the lid rests squarely upon them, which gives the additional advantage of perfect ventilation over the honey board, rendering shade-boards unnecessary.

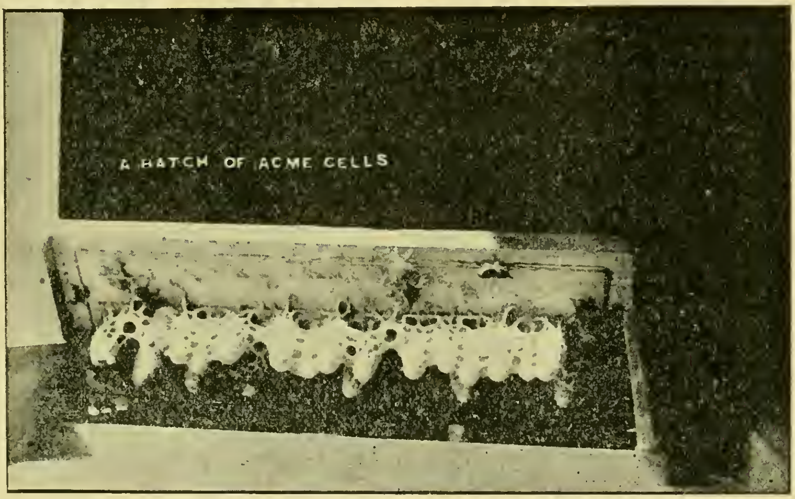
As noted heretofore, and repeated by Mr. Pridgen in this number, there is the slight difficulty, in manipulating bees thus confined, of their disposition to "boil over" when the the hive is opened, as has been necessary to do formerly, in giving the cups. To insert a frame with the cups necessitates the opening of the hive, and some loss of bees is bound to result. The simple loss of a few dozen, or hundred bees, would not in itself be so objectionable; but, if queen-rearing is being carried on at a time when honey is not coming from the field, it is eminently desirable that all undue commotion and excitement should be avoided; and the efforts of the bees, which have escaped, to re-enter the hive, attract robbers; while the unguarded entrance, with plenty of honey inside, adds to their determination to get in. We therefore was led to muse: "If only these cups might be given without opening the hive, how delightfully satisfactory the whole affair would be." To give the frame with the cups, as stated, without opening the hive seemed impossible, but why not give the cups without the frame above? This could be accomplished easily without opening the hive—but would the bees as readily accept the cups in this way—that was the the question. Repeated trials have demonstrated the fact that they will; and the plan has been quite extensively used this season in our yards, with gratifying results.

Cut through a half-inch honey-board, an opening 3x11 inches. Around this, on the upper side, nail a rim of three-eighths stuff. Along each side of the opening, on the under side, nail strips of tin, as a support for a tin slide by which the opening is closed below, and which may be withdrawn from the end. This slide should extend beyond the end of the honey board, so as to admit of its being withdrawn while the board is secured in position. Have a cleated lid for the top, made of a piece of three-eighths material. To this the cups are attached, and when they have been grafted place the lid in position over the tin slide and withdraw the tin. The second picture will show the result of our first trial of this plan. Twenty-three perfect cells out of a possible twenty-six; and some of these were grafted by a student, taking his first lesson in grafting. Better results have since been obtained, but this being the first, was the only one that has been photographed. In the picture, the lid is simply raised sidewise, in order to give a glimpse of the cells. See next page.

The arrangement of the hive otherwise is about as described by Mr. Pridgen, excepting that we omit one frame in the center of the hive, to permit the bees to cluster solidly about the cells, and to prevent the possibility of the tips of cells being attached to the top-bars of frames below.

This plan of giving the cups is perfectly adapted to the use of the wooden blocks, as they are easily locked in a form on the inside of the lid.

In connection with this plan of cell building it may be said that, where a sufficient number of bees are employed, and too many cups are not given, it admits of a very simple and satisfactory method of forming nuclei. If a strong colony is made up for this purpose, very fine queens result from leaving cells with the combined force until the tenth day after grafting. Then, all that remains to be done is to divide the bees into as many nuclei as there are cells, giving one cell to each nuclei, and removing to a new location, or taking other precautions against their returning to the old stand.



THE LATEST IN CELL-CUPS.

An Advance in the Construction of Artificial Cups—Suggested by the Original Inventor.

BY THE EDITOR.

Mr. W. H. Pridgen, of North Carolina, was the first man to introduce wholesale methods of manufacturing and using Doolittle cell-cups in queen-rearing. His cups were dipped in gangs of eighteen, by use of a device similar to a hay rake—the teeth serving as dipping sticks. By the use of a wax bar having eighteen three-eighths holes bored nearly through, these cups were supported at fixed distances apart. The distance corresponded with the openings in a line of nursery cages: so that when the cells were completed the bar of cells was placed over the cages, and the cells lowered into the respective openings. By this device the queens each found themselves in separate compartments when they emerged from the cell. If, however, there chanced to be a cell-cup not accepted by the bees there was an empty cage.

Mr. Doolittle conceived the idea that, by thoroughly waxing the inside of the holes in the Pridgen cup-bar, the work of cup-dipping could be dispensed with: and accordingly lowered one of the bars into melted wax, allowing the air to escape through the small openings made by the worm of the bit. He then inserted the royal jelly and transferred the larvæ, as per his method set forth in Scientific Queen-rearing. The result was, not a larva was accepted, but the bees had thrown up a slight ridge around each hole, giving it more of the appearance of a real cup than formerly. To his experienced mind this "ridge" bore a significance which suggested another trial. Accordingly the same cups were regrafted; and every one was accepted and completed; fine queens being secured from each of the eighteen cups. As a result of this experiment

Mr. Doolittle now gives the following directions: "Dip your sticks in wax, give one, five, ten or twenty to any colony for 48 hours, and you have your cell-cups all right. Now, start with royal jelly and larvæ, and when ripe use a nursery as does Mr. Pridgen, and you have the thing with very little fussing." We would here invite the attention of the reader to the similarity of the method employed by "Swarthmore" given elsewhere in this number. But we will quote Mr. Doolittle a little further, to show the strongest point in favor of these wooden cups: "I cut the cells apart with the pruning shears, but the pieces of stick would not go into the cell-protectors, consequently I expected the bees would tear them down, as they do other queen cells where given soon after a laying queen has been taken from a nuclei or colony, when not using the cell-protector. To my surprise, not a single cell has been destroyed. So you will see that in this thing we have cell-cups and cell-protectors combined, as the wood reaches down past where the bees naturally tear the cells open."

Judging from the extent of our correspondence upon this point, which has resulted from a communication published some months since in the *Bee-keepers' Review* relating to our preference for separable cells, instead of having them non-separable, as they practically are in the method given by Mr. Doolittle, above, we believe it is quite generally known that we prefer the separable kind. We believe, however, that the protection afforded by the wood is a matter too important to be over-looked, where a large number of queens are to be reared.

Upon receipt of Mr. Doolittle's detailed statement of his experiments with the wooden bar, and its success, our thoughts were immediately and earnestly given to devising a plan which would combine ease of separability with the wooden protection. We regret that space in this number will not permit us to give illustrations and a full explanation of its result; but it will follow in the near future. We would say briefly, however, that the plan consists of having a number of hard wood blocks one-half inch square, through each of which is bored a three-eighth hole, and inserting in each hole a light waxen cup. The whole lot of these blocks is locked upon a flat surface, after the manner in which a printer locks his formes, and are given to the bees by the same method as illustrated and described elsewhere, above the frames. When the quoins, or wedges are released the cells are free to be handled separately. We have used quite a large number of this style of cups and cells during the past two months, and have yet to have the first one destroyed by the bees. But little wax is necessary in their construction, as the block gives practically an indestructable base.

We think so well of the arrangement that we should like to have those of our readers who propose rearing queens next season give it a trial and report. The W. T. Falconer Manufacturing Co. have provided us with blocks which are simply perfection, and we have no doubt that they will be able to supply them to all who may desire to try them, as they will also with the wax cups.

* * *

Bee-keepers' Convention.

Naples, N. Y., Nov. 23, 1900.

Publishers American Bee-keeper.

Gentlemen:—There will be a convention on the 13th and 14th of December, held in Canandaigua, N. Y., by the Ontario County Bee-keepers' Association. It is connected with a Bee-keepers' Institute. Mr. W. Z. Hutchinson, Editor *Review*, will be in attendance.

Yours Respectfully,
F. Greiner.

Secretary Ontario County (N. Y.) Bee-keepers' Association.

IS IT AN ADVANTAGE

For a Beginner to Rear His Own Queens?

BY J. O. GRIMSLEY.

AT some time in life we were all beginners. Some of us were quite young, others more advanced in years; and in our reflections we look back on the past and call to memory our likes and dislikes. More especially does the mind find a resting place upon the features of the business that tickled our fancy at the time, and in most cases we remember that the growth and development of the queen was first with us.

We were beginners in a business—yes a business—that was to grow in volume, and interest us more and more as the years rolled around, and each had an object in view. That is, some of us expected to confine ourselves to the production of honey, others were laying a foundation for queen-rearing, while a few—a very few—were born naturalists and were studying the life history of our "little pets" for the great statisfaction to themselves and the good they might do for others, in disseminating knowledge that the every-day bee-keeper had not time to acquire from personal experiments.

But more to the practical side of it. With the beginner the first queen-rearing is done by the de-queening method, and in most cases not even discarding the short, stumpy cells. By and by he improves by selecting the long, "peanut" cells and destroying the others. As time goes on his experience grows until finally he is grafting, *a la* Doolittle, or Pridgen, and then we find him in a very interesting part of the game, and he begins to fancy himself a breeder. He has other hills to climb, by-paths to clear up, and many things yet to learn. But we are talking about the beginner and will have to go back and see what he is doing.

Taken as a rule I will assert that fifty per cent. of the queens reared by beginners—on the de-queening plan—are inferior in some respects; many being almost worthless, while, as a rule, the professional queen breeder can supply him with queens, ninety per cent. of which will be first-class. Then, if he wants to keep his colonies strong, and in a condition to bring in the coveted sweets, it would be best to let queen-rearing pass until he had a few surplus colonies to experiment with. There is a time when all bee-keepers should know how to rear queens—it will pay them—but just at what time in one's experience the business should be learned, depends much upon circumstances, and the natural inclination to get down to detail.

If we are studying bee-keeping merely as a fancy, or from a naturalist's point of view, then go right in—it is one of the most fascinating studies connected with the business and the more you learn the more you want to know. By and by, as you become more familiar with the business you will begin to study the drone side of the business, and as you advance other things present themselves—improvement in color, improvement in the various working qualities, such as comb building, etc., and stranger things happen than for longer tongues to be looked for.

But as a beginner, with the exception I mention, I would always say: Let it alone. With limited knowledge, valuable colonies are likely to be destroyed. There are so many things to look to, we should have quite a good store of knowledge as to the habits of workers before undertaking it.

Beeville, Tenn., Nov. 1. 1900.

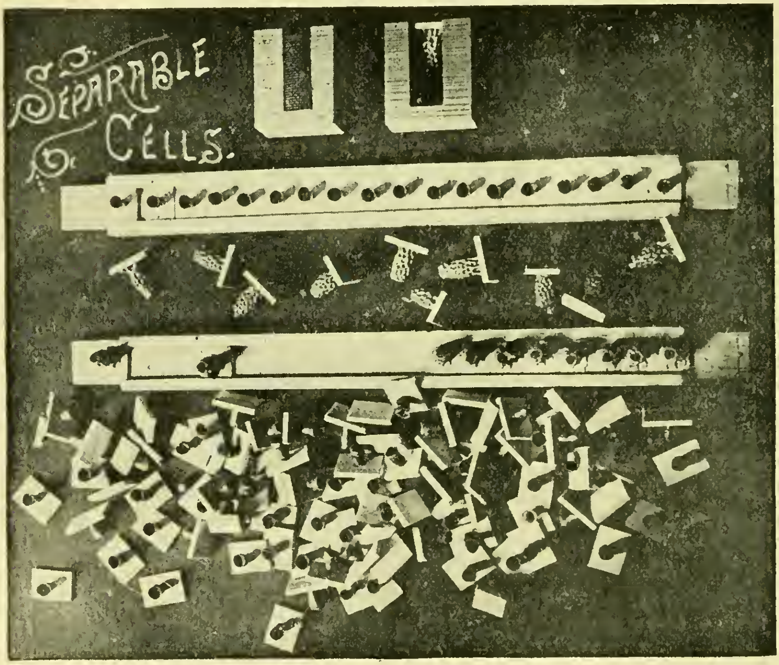
* * *

Index and title page will be found in this number. Why not have the volume bound?

SEPARABLE CELLS.

As viewed by The Bee-keeper, the ready separability of cells is a most desirable feature. Nearly all the methods of having cells constucted do, in one sense, admit of their being separated without inconvenience; though with but few is it convenient to detach or insert any particular cell which it may be desired to. The photo herewith presented, from the *Bee-keepers' Review*, illustrates a plan which we had in use several months with quite satisfactory results. The cups were attached to square pieces cut from section-boxes, and the block slipped into grooves along the sides of the supporting bar in the frame. This plan would probably have been still in use had not Mr. Pridgen spoiled it all by suggesting an obviously better way of doing it.

Pridgen sent us a sample bar having tiny T-tins placed transversely, the fold of the T being inserted in a saw kerf and held in position by a brad driven in the fold of the tin. Thus the cell blocks were made readily removable at will without the necessity of displacing any other cells than those which it was desired to remove. Our chief object in using the block was to have the cell attached to the top of the nursery cage—which the block really was—when this stage had been reached; as it fitted snugly into the opening at the top, leaving the cell suspended inside, as shown in the cage at the right, from which the wire screen front has been removed to show the cell in position.



Where a cage is designed to use the cells without the block, there is really no occasion for their use, providing some means for the convenient separation, attachment and detachment of cells is otherwise afforded. This is all readily accomplished by another of Mr. Pridgen's devices, for a sample of which we are indebted to him. He has inserted, at a distance of five-eighths of an inch apart, on the under side of the supporting bar, two bits of wire driven into the wood, the ends of which protrude about three thirty-seconds. The base of a heavy wax cup is simply pressed against these wire points, and the fastening is complete; while any cell may be picked off and another placed in its stead at any time. This is unquestionably the most convenient form of attaching and removing cells yet devised; and will probably become more generally used than any of the others, where a frame is used.

SOME DON'TS FOR BEGINNERS.

BY DR. C. C. MILLER.

Don't think you can raise queens in the winter.

Don't try to start queen-cells much in advance of the time when bees begin to start them for swarming.

Don't think that a thimble-full of bees can start good queen-cells.

Don't be satisfied to rear queen-cells from anything but the best stock obtainable.

Don't be satisfied to let the drones take care of themselves without suppressing them in all but the very best colonies.

Don't allow your nuclei to stand without brood so as to start laying workers.

Don't take a queen from a nucleus until she has laid enough eggs to establish a fair reputation as a layer.

Don't give a cell to a nucleus until it is near hatching, especially if weather is cool.

Don't hesitate to smash remorselessly any queen that don't come up to your standard.

Don't set your standard too low.

Don't fail to recognize that the queen is the main thing in bee-keeping.

Don't think that in thirty days you can learn as much about queen-rearing as Doolittle did in thirty years.

Don't think that if you don't do any of the above-mentioned things you don't need to be on the lookout for some other foolish thing.

Marengo, Ill., Sept. 21, 1900.

Could You Oblige Us?

If any of our readers know of *bee-keepers* in their county or neighborhood who do not subscribe for THE AMERICAN BEE-KEEPER, they will confer a great favor by sending us a list of such names, so that we may forward sample copies.

* * *

New Columbia, Ill., Nov. 13, 1900.

Editor AMERICAN BEE-KEEPER.

Dear Sir and Friend:—I received the money order, and it was quite a surprise to me as I did not expect anything for the article. Thank you.

Yours Respectfully,
W. T. STEPHENSON.

THE AMERICAN BEE-KEEPER

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☞ Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER, Falconer, N.Y.

☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

All cheap queens are not inferior, but facilities and care necessary for the production of good queens are expensive.

And now, we have to bid an eternal farewell, not alone to the old year, but as well to the century of our birth, and that of modern bee-keeping.

In considering the merits of stock, color should be the last to receive attention. "Handsome is that handsome does," very fittingly expresses the matter. "Beauty is but skin deep."

If a queen is found to be incapable of keeping her colony up to the standard, better pinch her and turn the combs over to a queen that will make profitable use of them.

Do not condemn a queen because some or all the workers which accompany her through the mails are not marked according to your liking. They may be no relation to her.

An abundant yield of nectar in the flowers availeth nothing without bees to gather it. The extent of the working force depends more largely upon the prolificacy of the queen than upon all else.

The purity of a queen is not told by any markings of her own, as one of our correspondents appears to think, but by the markings of her progeny. Neither is one or two bands on a drone any index of impure blood.

Drones, it is said, to be of service, must reach a certain age. Now, who will enlighten us as to the minimum limit? In rearing queens early in the season, knowledge on this point might prove of value.

In the *Bee-keepers' Review* for October is chronicled the death of Editor Hutchinson's father, aged 82 years; while the *Western Apiary* for that month mourns the death of Mrs. C. H. Gordon, wife of the editor. THE BEE-KEEPER condoles with Brothers Hutchinson and Gordon in their sorrow.

It is with feelings of sincere gratitude toward our many readers who, by their contribution, prompt remittances, kind words to ourselves and others, and in many other ways, have aided us in our earnest effort to give them an interesting and instructive bee-paper, that the publishers and the editor of THE AMERICAN BEE-KEEPER join in extending to each and every one their best wishes for a Merry Christmas and a Happy New Year.

Mr. Will Ward Mitchell, who has long been associated with the *Progressive Bee-keeper*, has assumed the role of editor of that journal. Mr. Mitchell, during the occasional temporary absence of Editor Leahy, has in the past demonstrated his ability in the line of his new work, and while we regret the retirement of Mr. Leahy from the editorial chair of our esteemed contemporary, we wish and bespeak for his successor great success.

O. O. POPPLETON.

Of the beacon lights of American bee-keeping but few shine more brilliantly than Mr. O. O. Poppleton, whose portrait we are pleased to be able to present in this number; and those "few" only by reason of their more extensive writings.

Mr. Poppleton is one of the very few with whom honey producing has been a successful and life-long specialty. He has operated quite extensively in Iowa, Cuba and Florida; being at present one of the largest producers of extracted honey in the latter state. The "Long Ideal" is his favorite hive, and is used exclusively. His naptha launch, "Thelma," is a commodious transport, built especially for his bee-keeping work, and is a well-known craft along the east coast of Florida. The solar wax-extractor, now so commonly in use throughout the world, is a product of his ingenious mind.

Mr. Poppleton is a veritable cyclopædia of apicultural knowledge, an accomplished though modest conversationalist and a gentleman whom to know is to esteem most highly. The portrait herewith presented is his latest and best; having been taken in September last while on his trip to the National Convention of Bee-keepers at Chicago.

If you live in "York State" you should look up the places and dates of the Bee-keepers' Institutes to be held therein this month.

One of the time-saving kinks with certain bee-keepers has been to have ready and introduce a virgin queen at the time of removing the old queen from the hive, instead of giving a cell. Mr. Poppleton has found that young queens having been thus caged and introduced will not begin to lay nearly so soon as those permitted to emerge from the cell directly among the bees. This being the case, there is instead of a saving a loss of time resulting from the practice.

In providing a queen for a queenless colony, a very common practice is to give it a frame of young larvæ or eggs. Our amateur friends who have been in the habit of thus treating queenlessness should know that the plan, as ordinarily practiced, is conducive to degeneracy. The primary requisite to the production of good queens, is the presence of an abundant supply of young bees, to feed and care for the larval queen. Several frames of hatching brood should be given the colony a few days previous to giving the eggs from which it is desired to rear a queen; unless, perchance, the colony has not been queenless a sufficient length of time to lose its nurse-bees.

The season of the year when the eyes of the world appear to be trained on Florida. has returned. The volume of inpouring letters requesting information in regard to bee-keeping advantages of the state, are sometimes more than we can handle. Very many of those who ask for detailed information are not even subscribers to THE BEE-KEEPER. To grant all requests, as we should be pleased to do, would necessitate a private secretary and a couple of stenograpers. Subscribers need not hesitate to propound any and all the queries they feel inclined; and if we are unable to keep up with them by private correspondence, we shall endeavor to give information of general interest through the columns of THE BEE-KEEPER regarding this or any other country of which we may have some knowledge.

The attention of New York state bee-keepers is invited to the notice, published elsewhere in this number, of the Bee-keepers' Institutes to be held this month in Batavia, Canandaigua, Romulus, Auburn and Johnstown. Every effort has been made to have this series of institutes very instructive and entertaining, and it is earnestly desired that all interested in the wellfare of the pursuit shall lend interest and encouragement by their attendance, when possible. We understand that the list of interesting speakers booked to address the meetings includes the name of W. Z. Hutchinson, Flint, Mich.

In the November number (page 214) we propound four questions, offering one dollar for the first correct solution. This was done with a view to enciting research and the exercise of thought on the part of our amateur readers. At this writing, November 21, several responses have been received; but the dollar still rests impatiently in the pigeon-hole, for the want of correct answers. Instead of offering a new problem this month, we have decided to give our readers another chance at the old one. Professional bee-keepers are not to participate in the competitions for these prizes. We should be pleased to have our amateur friends respond freely; and judging by the evident ability of some of those who have already replied, we believe it will be an easy matter for them to pick up several dollars during the coming year.

That there is a great difference in the queen progeny of mothers in regard to the length of time between hatching and mating, is a point upon which we do not remember to have heard any comment. As a result of some observation, it has been demonstrated that the daughters of one mother became laying queens in from eight to twelve days, while, in the same yard, at the same season, virgins bred from a very desirable mother did not become fertilized under fifteen to twenty days. Continued breeding from these two queens for several months during the past season proved beyond question, to our mind, that this is a trait very distinctly marked, and an inherent disposition in certain stock. It just appears to be a case of "I'm so shy" on the part of this particular family of fair misses. A most commendable trait of character, in some instances, indeed; yet, not altogether desirable in queen bees —especially when one is behind on his orders.

AN AMATEUR DEPARTMENT.

Again we are requested to introduce an exclusively amateur department, by two of our readers. Again we reply: If our amateur friends will come to the front, and by their contributions and interest support such a department, we shall be pleased to give them space. We are in receipt of some matter at this writing which we shall probably use as a beginning next month; and we cordially invite our amateur friends to gather around the "Amateur Table" and assist in making this department one of the most interesting. We solicit questions upon any and all matters relating to bee-keeping; which will be published, and the other members of the amateur circle permitted to reply to these questions. When a question is received which may be regarded by the editor as being particularly difficult, a cash prize will be offered by him for a correct solution.

It is a fact which we regret, but of which we have ample evidence, that many who are capable of writing something of interest. hesitate to do so simply because of the fact that they have had no experience in writing for publication, and believe that their letters would therefore not be acceptable. To such we would say: Try, just once, and observe the result. Some who have done so during the past year have been surprised—not only to read their communications in print—but to receive a money order from the editor, with his sincere thanks for their interest.

The loss of young queens attributed to various causes by inexperienced bee-keepers, is thought by Mr. Quirin to result from a lack of unsealed brood in the hive. He seems very confidant of the necessity of a supply of unsealed brood during the time between introducing and mating. We take the liberty of quoting an interesting paragraph from a recent letter received from him on this point. "We will suppose that fifty queens are given to nuclei having but little or no unsealed brood. If no honey is coming in, at least half of the queens will be lost; and if all the brood is sealed and a good share of it hatched, more than three-fourths of the queens will be missing, and a good share will be crippled. Some may also be drone-layers. This loss is caused by the bees, as they, having all their brood sealed, with no honey coming in, are, as a rule, idle and consequently irritable. Their irritable mood is vented on the queen. In such cases the queen will fly from the hive and not return; and may occasionally be found flitting hither and thither in a forlorn condition, rather than to return to the hive and be stung to death." Mr. Quirin's long and extensive experience commands consideration, and such notes are always accepted with gratitude by THE BEE-KEEPER. The thought of one person publicly expressed begets other thoughts in the minds of many of his readers, and in this way the chain is continued indefinitely, with the result that we may all constantly exercise our minds in the consideration of a pleasant subject, and new facts are likewise constantly becoming established. Now, we should like to know why, in the artificial manipulation of this process of exchanging queens, it is that the presence of unsealed brood is so essential, when, in natural swarming, the conditions are so different—there being ordinarily, no unsealed brood in the hive at such a time, as a necessary result of the laying queen having taken her departure several days previous. If the lack of nectar supply is the cause, will light feeding within the hive yield the same desirable result as the presence of unsealed brood? We do not think we have lost a single queen in our limited experience, from the cause mentioned and have never given the matter of unsealed brood a thought, even when the nectar supply has been light; though we sometimes feed carefully.

NEW YORK STATE BEE-KEEPERS.

New York Bee-keepers' Institutes will be held as follows: Batavia, December 12th; Canandaigua, December 13th and 14th; Romulus, December 15th; Auburn, December 17th; Johnstown, December 18th. Bee-keepers living in the vicinity of these institutes are urged to attend and take an active part in the proceedings.

LITERARY NOTES.

THE IRL R. HICKS 1901 ALMANAC.

Whatever may be said of the scientific causes upon which the Rev. Irl R. Hicks bases his yearly forecasts of storm and weather, it is a remarkable fact that specific warnings of every great storm, flood, cold wave or drouth, have been plainly printed in his now famous Almanac for many years. The latest startling proof of this fact was the destruction of Galveston, Texas, on the very day named by Prof. Hicks in his 1900 Almanac, as one of disaster by storm along the gulf coasts. The 1901 Almanac, by far the finest, most complete and beautiful yet published, is now ready. This remarkable book of near two hundred pages, splendidly illustrated with charts and half-tone engravings, goes as a premium to every subscriber who pays one dollar a year for Prof. Hicks' journal, Word and Works. The Almanac alone is sent prepaid for only twenty-five cents. Order from Word and Works Publishing Company, 2201 Locust Street, St. Louis, Mo.

We have just received from the publishers, Wilmer Atkinson Co., Philadelphia, Biggle Pet Book Number Seven of the Biggle Farm Library. This book has been prepard especially for young people, but will interest everybody. Naturally the greater part of the book is devoted to those almost universal pets and companions of men—the dog and cat. Particularly interesting chapters are devoted to shepherd dogs and their training for field and farm work. But little attention has been paid to the sporting side of dog life. Other chapters are devoted to rabbits, guinea pigs, squirrels, pigeons, bantams, canary birds, ponies goats and other pets. The illustrations are of the kind which really illustrate, nearly all of them having been made from photographs of the animals themselves. There are one hundred and thirty illustrations in all, the book contains one hundred and forty-four pages printed on coated paper with good clear type, and handsomely bound. The price is fifty cents by mail.

UNCLE TOM'S CABIN.

A southern plantation containing the original cabin of "Uncle Tom" is designed as an attraction of great interest in the Midway at the Pan-American Exposition next summer. This old relic is the property of the Shelby family, who are loaning it for the occasion. The Old Plantation will represent the better side of southern life as it existed before the war. A spacious mansion, cabins for the slaves, cotton fields with the necessary cultivating tools and picker's outfit, grinding mills showing how the slaves prepared their meal, in fact everything that properly belonged to a well-regulated southern plantation of fifty years ago.

Singing before the cabin door according to tradition by happy, careless negroes will form a pleasant and attractive feature of this interesting concession. Old plantation songs accompanied by skillfull musicians who have thoroughly mastered the banjo, never fail to please an audience under any circumstances. With the proper old-time setting, which only natural surroundings can give, the interest will be greatly augmented.

THE NOVEMBER AMERICAN BOY.

The thirty-two profusely illustrated pages of the November American Boy are full of stories, history, science and sport, for boys. As usual, the matter is clean, inspiring and helpful to the growing and ambitious boy. The stories are: We-all's Deer; Three Boys in the Mountains; Jack Holliday—the Boy Who Told Tall Stories; Cruise of the Yacht Gazelle; The Deerlick Christian Endeavor Society.

Other titles of interest are: Joining a College Fraternity; Wendall Phillips; Boy Singers; November in History; Hints About Football; How a Western Boy Got His Start in Life; The First Thanksgiving Dinner; Something About the Post-office; Squirrels and a Squirrel Hunt; Hints on the Study of Insects; The Beginner's Guide to Stamp Collecting; Where to Find Stamps; How Boys Make Money Out of Binding Books; Boys as Photographers and Printers; Boys as Collectors of Stamps, Coins and Indian Curios; Boys' Exchange, Puzzles, etc.

One Dollar per annum. Sprague Publishing Company, Detroit, Mich.

The Christmas Ladies' Home Journal offers a superabundance of literary and artistic features in most attractive form. Among its nearly twoscore contributors are Mrs. Lew Wallace, Elizabeth Stuart Phelps, Charles Major, William Perrine, Clifford Howard and Elizabeth Lincoln Gould, while A. B. Frost, W. L. Taylor, Reginald B. Birch, Henry Hutt, George Gibbs and as many other illustrators supply its pictorial features. Apart from the articles having special holiday timeliness of interest, the notable features of the Christmas journal include The Innkeeper's Daughter Who Dissolved a President's Cabinet, What May Happen in the Next Hundred Years, Jerusalem as We See It Today; Two Women's Gifts of Twenty-five Millions, The Little Men Play, a dramatization of Louisa M. Alcott's delightful story, Where Children See Saint Nick, The Fourteenth Man, Two Christmas Days at Rock Farm and the Successors of Mary the First, The Story of a Young Man, and the Blue River Bear Stories, which are continued. Edward Bok has a thoughtful article on Christmas celebration, and there are various articles on women's wear, Christmas presents and edibles, while various other practical, helpful themes are ably presented. By the Curtis Publishing Company, Philadelphia. One dollar a year; ten cents a year.

THE YOUTH'S COMPANION IN 1901.

The ends of the earth will be laid under tribute for the 1901 volume of the Youth's Companion. Statesmen, diplomats, travelers, trappers, men and women of many vocations will contribute to the entertainment of young and old in Companion homes. Theodore Roosevelt will write upon The Essence of Heroism. The secretary of the treasury will answer the question, What is Money? Frank T. Bullen, the old sailor who spins fascinating yarns of life at sea, will contribute a story. W. D. Howells will describe the relations between young contributors and editors. Paul Leicester Ford will write about The Man of the Dictionary—Noah Webster. There is not space here to begin to tell of the good things already provided for readers of the new volume of The Youth's Companion—interesting, instructive, inspiring—from the pens of famous men and women.

Illustrated Announcement of the 1901 volume and sample copies of the paper sent free to any address.

All new subscribers who send in their subscriptions now will receive not only the fifty-two issues of The Companion for 1901, but also all the issues for the remaining weeks of 1900 free from the time of subscription, besides the beautiful Puritan Girl Calendar for 1901, lithographed in twelve colors and gold.

The Youth's Companion, Boston, Mass.

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greatest masterpieces in the art galleries of Europe. Every picture is as beautiful as a sunrise over the hilltops. Contains description of the paintings, biography of the painters, the names and locations of the galleries in Europe where the originals may be seen. Also contains a child's department, including a Child's Story of the Christ and His Mother, beautifully written to fit each picture. This wonderful book, matchless in its purity and beauty, appeals to every mother's heart, and in every Christian home where there are children the book sells itself. Christian men and women are making money rapidly taking orders. A Christian man or woman can in this community soon make one thousand dollars taking orders for Christmas presents. Mrs. Waite, our agent in Massachusetts, has sold over three thousand dollars worth of books in a very short time. Mrs. Sackett, our agent in New York, has sold over one thousand and five hundred dollars worth of the books in a very short time. The book is printed on velvet-finished paper, beautifully bound in cardinal red and gold and adorned with golden roses and lilies. It is, without doubt, the most beautiful book of the century. Write for terms quickly and get the management of that territory. You can work on salary or commission, and when you prove your success we will promote you to the position of manager and correspondent, at a permanent salary, to devote your time to attending to agents and the correspondence. Wanted also a state manager to have charge of office in leading city of the state and manage all the business of the state. Send for terms. Address—The British-American Co., Corcoran Building, opposite United States Treasury, Washington, D. C.

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white" "No. 1, dark," etc.

NEW YORK, Nov. 7, 1900.—The recent heavy arrivals of Western honey has caused the prices to ease off considerably. We quote as follows, in 1-lb sections: Fancy white, 15@16c; No. 1 white, 14@15c.; No. 2 white, 12@13c.; mixed; 10@11; buckwheat, 10c.; buckwheat extracted, 5½c. Beeewax, 27@28c. Nov. 20.—Receipts of comb and extracted honey are rather light at present, with but little demand. FRANCIS H. LEGGETT & CO.

CHICAGO, Nov. 17.—We have a fair demand for best grades of white comb and extracted honey but supply of fancy comb is short. Price, fancy comb, 15@16c.; extracted, white, 7½@8. Good demand for beeswax; apiary run taken on arrival at 28c. Supply is insufficient. Prices on all kinds of honey higher, unless it is dark and mixed colored comb and buckwheat extracted. R. A. BURNETT & CO.

KANSAS CITY, MO., Nov. 17.—We report a good demand for all grades of honey with light supply, especially in comb honey. Price for comb, 12@15c., extracted, 8@9c. Beeswax is in fair demand at 22@28c., with light supply. All report short crop, and indications point to an advance in prices before another crop.

W. R. CROMWELL PRODUCE CO.

BOSTON, Nov. 19.—We have an ample supply of honey with fair demand. Price of comb, 15@17c.; extracted, 7@8c. The demand for beeswax is light and supply the same at 25@27c.

BLAKE, SCOTT & LEE.

BUFFALO, Nov. 16.—High prices, moderate demand and ample supply is our present report. Price of fancy comb, 17@18c.; extracted, 7@8c. Fancy beeswax is in fair demand with light supply. Price for fancy, 28@30c. Sales rather slow at present, doubtless owing to the extreme high prices in all grades of honey.

BATTERSON & CO.

OUR
EXTRACTOR

BEES STAMPEDE A FUNERAL.

According to a special to the Philadelphia *North American*, of August 9:

As the hearse containing the body of James Bracken, formerly of New Albany was driven into the Rural Cemetery, near Bradford, Harrison County, Ind., one of the horses attached to it trod on a huge nest of bumble bees.

For a few minutes there was a lively scene. The angry bees swarmed from the nest and attacked everything and everybody in sight. They stung the driver of the hearse until he was blinded and fled; they attacked the pall-bearers around the vehicle and drove them away; the widow and mourners in the carriages following were victims of the insects' activity; the attending minister was stung by two of the bees and many of the attending friends were promptly driven from the enclosure.

The horses attached to the hearse were the first to feel the vengeance of the bees, and were stung so badly that they ran away, but were caught just as the hearse and coffin were about to be overturned.

After a vigorous fight that lasted a half hour the bees were driven away, the coffin taken from the hearse and the body laid to rest.

SWARMED ON HIS HEAD.

A special to the Philadelphia *Public Ledger*, from Shippensburg, Pa., stated that on August 12, while T. M. Goetz was picking peaches, a swarm of bees alighted on his head and face, stinging him terribly. In a short time his face swelled to alarming proportions.

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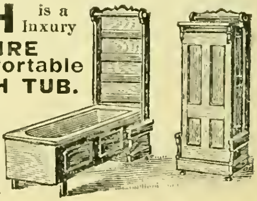

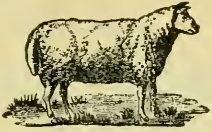

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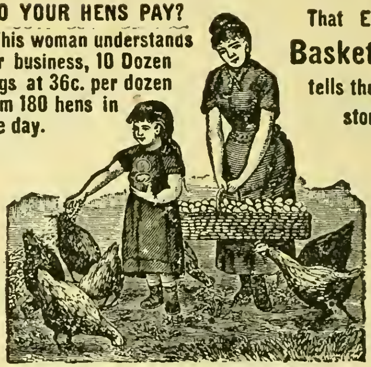

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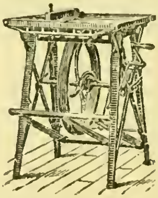

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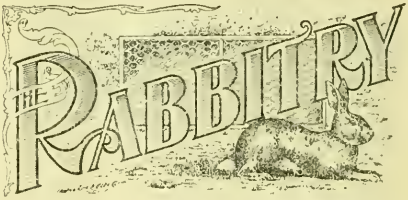

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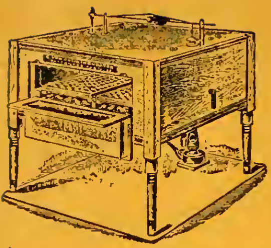
JANUARY

1901

Vol. XI

No. 1

Entered at the Postoffice, Falconer, N.Y., as second-class matter.



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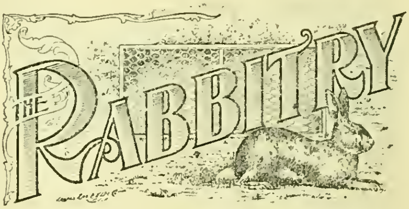

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" " and McClures	3 00	2 25
" " and Munseys	3 00	2 25
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MR. G. M. DOOLITTLE.
(See page 6.)

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI JANUARY, 1901 No. 1

UNPAINTED HIVES.

BY ARTHUR C. MILLER.

MR. DOOLITTLE has for a long time championed unpainted hives, and has supported his cause with much vigor and persistence. Both on account of his having had so many more years of experience than myself, with many more colonies, and his generally thorough and careful observation, I am somewhat loth to take a position antagonistic to him.

For three reasons I object to unpainted hives: First, appearance; second, economy; third, condition of bees.

Generally speaking, unpainted hives go with unpainted buildings, shabby fences, farm implements etc., etc, and I have almost invariably found that where the hives were unpainted, that man did but indifferently with his bees; in a word, he was "slipshod" in all his work. (I do not imply that Mr. Doolittle is). Well-painted hives encourage an orderly apiary and that helps to maintain a spirit of neatness and care in everything pertaining to the business; and if the constant insistence on this by apicultural writers and honey-dealers is any criterion by which to judge, there is certainly need of wider practice of these virtues.

As to the economy, I maintain that a coat of thin paint each fall is far cheaper than a new hive every little while—I cannot say how often, for I gave up the unpainted business before my hives had a chance to deteriorate much. Beside the saving of the hive there is the economy of stores and vital force of the bees; and this brings us to the third phase of the question.

Mr. Doolittle's position is that by leaving the pores of the wood open the moisture from the bees will pass out (with mine it *all* goes out the *front door*) but he does not say where the rain and water from melted snow will pass to from these same pores when they become filled with it. Let him put on an overcoat and sit out in a good, cold rain and see where the moisture goes and how warm it is inside of it. Then let him try a dry coat and a rubber coat over it, and report. He will not feel any moisture inside the rubber coat unless he is exercising rapidly. Had he beneath that coat an automatic ventilating fan, such as the bees have, he would find no moisture there even were he perspiring freely. The bees are in the condition of a human body at rest and they give forth moisture very slowly (though not literally perspiration, more properly exhalation). If they are properly protected and have been in the hive long enough to varnish the inner surface of it so no moisture can get into the pores of the wood from that side, they will be found to have dry combs and to be in a healthy condition in the spring. The bees' domicile differs from the rubber coat simile in that the moisture cannot reach a chilled surface and condense thereon, but is held in suspension and driven out with the vitiated air by the bees. One of the early operations of the bees in a new home, be it a box, a straw hive or a hollow tree is to thoroughly varnish the interior, and when they have a box fixed to their liking it will be as tight as a tin can. My bees are prepared as follows:

Double-walled hives with two inches of planer-chips all around, an enamel cloth mat over the frames and over this a tray with cloth bottom containing two inches of chips. The mat is put on early enough to enable the bees to glue it tight and also to make their own bee-ways above the frames, if they wish them. For over fifteen years I have thus prepared my bees, sometimes wintering upwards of forty colonies, and with a loss of less than one per cent. of colonies so prepared, in all that time. Go to my bees when the snow lies deep and you will find it melted away from the entrances. That shows ventilation enough to suit me and evidently to suit the bees: at least they come out in the spring with dry combs, sound stores and healthy bees.

Nearly every winter I try some different plan with one or two colonies, and this season have two in single-walled hives, enameled mat and two inches of chips on top of frames, and tarred paper around the outside of hives from the cover to the ground. The climatic conditions are these: Exposed to all northerly storms, with a temperature often below zero, but never for long periods: then a change of wind to the south which brings in warm, moisture-laden air from the gulf streams, saturating everything with water. Then again, while everything is soaked wet the wind will change and in a few hours all is turned to ice. Generally bees get a chance to fly once or twice each month, though I have known them to be shut in all winter. Under such conditions I prefer a well-painted chaff hive, sealed tight and only such ventilation as the bees choose to make through the entrance.

Providence, R. I., Nov. 21, 1900.

QUALIFYING FOR AN APIARIST.

BY G. M. DOOLITTLE.

NOW that we are in the midst of long winter evenings it becomes the duty of all to spend these evenings in such a way that they may be gaining in knowledge along the line of the pursuit they have chosen in life. In no business engagement is this more imperative than where the culture of the honey-bee is the chosen occupation; and in no way can this be done to any better advantage than in reading the bee-literature of the day. Beside THE AMERICAN BEE-KEEPER, other papers especially devoted to bee-keeping should be taken and read, and some of the many good bee-books purchased and studied, from which the mind is to be stored with useful knowledge, which can be put into practice as soon as the season of 1901 opens.

When I first commenced bee-keeping I was greatly benefitted by the writings of L. L. Langstroth, Moses Quinby, E. Gallup, A. I. Root, Adam Grimm and many others of those early writers on this subject; for by their writings I learned my A B C in bee-culture. 1869 was my first year of experience in bee-keeping, by way of putting the things which I had read into practice, and, although a year so poor that those keeping bees about me got nothing, I obtained twelve pounds of comb-honey and one swarm from the two purchased in the spring. The next season I obtained an average of about thirty pounds of surplus from each colony I had in the spring. At the end of the fourth season I chronicled an average of eighty pounds of comb-honey as the surplus for each colony in the spring, and at the end of the eighth year my record was an average yield of 166⅔ pounds of comb-honey from the sixty-nine colonies of that spring, while the three strongest, in early spring, gave me 295, 301 and 309 each respectively. During those eight years I had studied, read and practiced all my wakeful hours about the bees, having keen enjoyment in doing the same; for I never spent an hour in my life in work pertaining to bee-culture without it being a pleasure to me; and this was brought about by those winter evenings when I first began to read up on the subject.

Hundreds of nights have I lain awake from one to three hours planning how to accomplish some result I desired to achieve in regard to the practical part of apiculture, which, with the help of what I had read, caused me to accomplish what I had sought after. I have found that if I would succeed, that, as far as possible, I should read mainly those articles and books which came from the pens of practical bee-keepers, for such were the ones who made a success of their calling, and told just how they did it. If you wish to learn farming, to whom do you go? to the man whose farm grows up to weeds and briars, or to the man who produces good crops each year? To the latter, of course; so you should do in bee-keeping.

I know that many of our most practical bee-men do not write for publication, and for this reason we can bring in visiting during the winter, as another help along the line of qualifying ourselves, Then we have our bee-conventions, which are held for this special purpose, and while the cost may be considerable, yet if we improve the time as we should we can learn more than enough to make that cost good, beside the benefit we derive socially. All of these things are great helps to us, and should be eagerly sought after, as they will be if we have the natural qualifications for the calling which we have chosen. If any person loves something else more than they do to study into bee-keeping, and only do so as a sort of duty, let them be assured that they have mistaken their calling and the sooner they leave it and go to that which at all times gives them pleasure, the better they will be off, and the better it will be for the world.

Borodino, N. Y.

THE CELL-STARTING COLONY.

A Neat Method of Manipulation Concisely Stated.

BY "SWARTHMORE."

I WISH to briefly outline a method I have used the past season for cell-getting, which has given me remarkably good results with very little labor and fuss:

Hunt up the queen of a powerful colony and lift her, frame and all, into an upper story; place two empty combs on either side of the one removed and tier the whole above a zinc honey board and allow the hive to stand thus until the brood in the lower half has passed the royal age (twelve days).

Late in the afternoon of the twelfth day remove the upper half containing the queen to a new stand at some distance from the old location and allow the bees in the lower half to remain queenless over night. Unless you bestir yourself quite early in the morning place a screen over the entrance of the half containing the queen and put that hive in a cool, shady place; do not release the bees therein contained until the bees in the lower half have been at work on cells for two or three hours.

Early the next morning prepare young larvæ by your favorite method and place the frame containing them in the middle of the queenless chamber where it should remain undisturbed until the following morning. Now bring back the upper story and place it on top as before, leaving the zinc in place for yet another day.

When the cells have been under way thirty-six hours protect them with zinc and divide them among two or three other strong colonies, according to the number of cells started, for finishing and then return the queen, frames and all, to the hive below and put on the boxes if honey is coming in.

If honey has not been coming all the while feed liberally during the entire time stated above and you should have queens equal to the natural swarm kind.

Swarthmore, Pa.

WHAT TO DO

And Things to Think About During the Winter.

BY F. GREINER.

THE months from December to March are the months when we may write about any subject on bees or honey without any fear of being ruled out by the editor. Anything will be seasonable.

Now, although there is scarcely any work we may do in our apiaries, still there is work that we can do. It is a good plan to get ready for the coming season. But that is not all. Now is the time for bee-keepers' meetings, visiting neighbors or distant friends engaged in the same pursuit; it is time for reading and for study.

I am acquainted with a number of bee-keepers living within few miles of where we hold annual bee-keepers' gatherings, who never attend or participate in any way. I am sure it would be to their interest to do so. Why are they so reluctant? A bee-keeper may post himself by reading the bee-journals and the bee-books. He may be so well posted that nobody could teach him any more. He might not think it worth while to spend his time attending such a meeting or become a member of a Bee-keepers' Association, which might cost him fifty cents or possibly a dollar. To such a brother I would say: If we all had felt and acted like that for the years past, would we have a foul brood law, an anti-spray law, anti-adulteration laws, etc.? No indeed! A single individual can effect but little; collectively, united, we are a power that can make itself felt. Men in other pursuits form unions for the protection of their mutual interests. It would be short sightedness if the bee-keepers did not do likewise. The very name of belonging to a "union" has some influence and weight sometimes. Two years ago I happened to have some deal with a commission man in Brooklyn. I discovered too late that the man's reputation was not the best and I began to fear I would not be able to get my just dues. As a last resort I threatened to put the matter into the hands of a U. S. B. K. Union. A speedy settlement was then made.

I never had to call on the National Bee-keepers Association for any assistance, but I cheerfully pay my membership fee annually as I pay my fire insurance premium. I don't expect my buildings will burn up, but they may.

It costs one dollar annually to be a member of the National Bee-keepers' Association. Our local association charges fifty cents for a similar privilege. So for one dollar and fifty cents paid annually I have been a member of two associations for a number of years. The constitution of the National Association is now so changed that for one dollar any one may be a member of both associations, providing the local association joins in a body and pays fifty cents for each of their members into the treasury of the National. It seems to me that all local associations would take advantage of this feature of the new constitution.

Members of any Bee-keepers' association are also benefitted in other ways. Nearly all publishers of bee-journals grant them a discount of from twenty-five to fifty per cent. on the regular subscription price of their bee-papers. In my own case, for instance, I save fully the dollar membership fees in my subscriptions alone. Practically, it costs me nothing to be a member of the two associations.

In order to have good and effective local and state organizations bee-keepers should give them their hearty and substantial support. Thus the officers, who do all the work gratis, are stimulated to do their best. It is very desirable that every bee-keeper attends the convention held in his vicinity. If for any reason you cannot be present, it would be some encouragement to those in charge of the affair to receive at least your membership fee. Will not those who have been or wish to be members of their local association and cannot be present bear this in mind. Let them write to the secretary or president at once and send in their dues. It does not require very much money to meet our expenses, but we must have something to do it with.

Now a word about reading: You may be a bee-keeper of many years' experience and may own a number of the standard works on bees and their management. You may not wish to purchase another book this winter and you may have read and re-read those you have. Well, then read them again. Some of them bear reading a number of times. It is of course a good practice to procure a new book from time to time, as new things are constantly being added.

Through the courtesy of Mr. W. F. Marks, president of our state organization, I have been enabled to read one of the later books on bee culture. It is entitled, The Honey-Makers, written by Margaret Warner Morley. It is a most original book. No other bee-book has ever pleased me more than this one. It is written in a unique and pleasing style, very much different from anything known heretofore. One can hardly stop reading long enough to eat his meals, so very fascinating is the book. This book should be in the library of every bee-keeper; yes it would form a valuable adjunct to any library, as it would be interesting reading for any intelligent person. It may be read with profit by the minister, the doctor, the lawyer, the merchant, the mechanic, the farmer. The best informed bee-keeper can learn valuable lessons from it.

The same author has gotten up another bee-book, The Bee People, intended for the young people. I am anxious to read it and will do so this winter, when I will report.

Many of us honey producers have had very meager returns from our bees this year. Let us study; let us look over the situation and perhaps we may do better next season. Now is the time to think the matter over. In my own locality, it is my opinion, bee-keeping has ceased to be profitable for some time to come. Why? We are in a great measure dependent upon basswood bloom for surplus honey. The little drips from fruit bloom, raspberry bloom, and clover amount to but little. Now the forest tent caterpillars have taken an undisputed possession of our forest. During June and July the foliage is being stripped off from most species of trees, in particular of the basswood and maple; by the time the basswood trees should be in bloom their foliage is all gone. These caterpillars are here in such numbers, one may hear a distinct noise when nearing the woods originating from the insects as they are eating. The constantly dropping excrements remind one of a rain. As long as this pest is here with us I expect noth- from basswood in the shape of honey secretion. I can see no other way out of this dilemma than to seek new pasture fields; move to Cuba, California or Colorado, or some other place where honey flows. That is what I'll do.

October 30, 1900.

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Will you have time to address a few postal cards this winter? If you will, please address one now to the publishers of The American Bee-keeper and ask for particulars in regard to their plan for giving away thirty-five dollars worth of supplies.

MR. G. M. DOOLITTLE.

The gentleman whose likeness it is our pleasure to present in this number of THE BEE-KEEPER, needs no introduction to the reading public; for where is the bee-keeper who has read Doolittle's writings (and there are none of the reading ones who have not) who does not feel that he knows Mr. Doolittle just as well as anybody.

The portrait is by Doust, Syracuse, N. Y., being Mr. Doolittle's latest photograph, taken in October, 1900, and is of especial interest at this time in connection with his reference to the first years of his bee-keeping life, also published in this number under the heading, "Qualifying for an Apiarist;" as it shows the author at the age of fifty-four, and in the thirty-first year of his successful bee-keeping career.

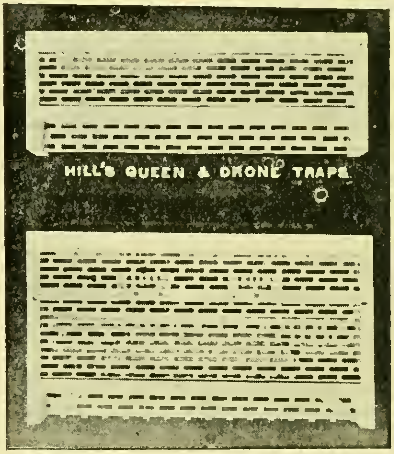
SOMETHING NEW IN QUEEN AND DRONE TRAPS.

BY THE EDITOR.

A queen and drone trap is a combined device which thousands of bee-keepers have used with varying degrees of satisfaction. It is often a great relief at swarming time, when other business calls the bee-keeper away from the apiary, to have a trap which may be placed at the entrance to catch the queen in the event of a swarm issuing during his absence, and there hold her securely until his return. It sometimes transpires, also, that a thrifty bee-keeper finds himself in possession of colonies containing an undesirable quantity of drones. Perhaps one or more hives in the yard are sending out drones of a class that he knows ought to be suppressed, at a time when young queens are about. Here, again, a drone trap comes into effective play.

If the reader has ever had occasion to use a drone and queen trap, and has observed the result of placing it on a hive at a time when workers were busy and drones were flying freely, he need not here be reminded of the confusion at the entrance, caused by the clogging of the perforated zinc. With the incoming drones barred out entirely and clustered upon the zinc, and one, two or three heads eagerly straining through nearly every perforation from the inside, honey-gathering is greatly hindered. The traps we have had in the past have been of great service; but the excellence of their work does not preclude advancement along the line of queen and drone traps. It is rarely indeed that any "combined" machine or device really "combines" all the elements or factors essential to the best accomplishment of the several purposes for which it is designed. We do not wish to be understood to say that tolerably satisfactory service may not be had from a combined queen and drone trap. On the contrary, we have confidence to believe that the queen and drone trap shown at the top of the engraving herewith presented, will astonish those who have tried other kinds, and will give this little device a trial—either as queen trap or drone catcher.

The engraving merely gives in miniature the exterior appearance of the trap. Its construction is upon entirely new lines, and drones or queens, when



they come in contact with the perforated zinc which bars their exit, naturally crawl immediately upwards upon the zinc, through ample openings directly into the chamber from which a return is rendered impossible. The zinc which comes in contact with the bottom board of the hive leads directly into this chamber, or apartment, so that they are "trapped" while crawling upwards upon the zinc excluder, in their efforts to escape. Incoming, as well as outgoing drones are caught by the same delusive passage, and enter the same "death chamber" without leaving the zinc bar which prevents them from entering the hive.

The drone catcher is designed for the sole purpose of catching drones, and while it is improbable that one queen in fifty would escape through it, the possibility that she might do so, renders its use as a queen trap unadvisable. It is a drone-catcher, and we confidently believe that no device heretofore placed before the bee-keeping public can approach its drone-catching capacity. The chief aim in its construction has been to overcome the objectionable feature of clogging, which is so conspicuous in all other drone traps of our acquaintaince. From the entrance of the hive drones are conducted through a spacious opening, several inches in length, into an apartment from which it is almost as difficult to escape as from any of the traps heretofore made; but this step simply places them above and away from the entrance, where they can not interfere with the free passage of the working force to and from the hive; and upon the perforated zinc which forms the front of the catcher, they freely ascend to the trap proper, without leaving the zinc. From this apartment a return is impossible so long as the law of gravitation endures.

In both the queen and drone trap and the drone catcher, the complete capture is effected by means of very delicate aluminum stops which, upon upward pressure, yield to a breath, but are rigidly supported from below. As with the queen trap, whether drones attempt to leave or enter the hive they are promptly arrested and placed by the device where they will not obstruct the perforations in use by the workers.

These devices have been thoroughly tested in our own yards, and their practical utility established beyond question.

BEE-KEEPING IN WEST FLORIDA.

A Letter From a Land Flowing With Malaria and Honey.

BY M. W. SHEPHERD.

THE territory traversed by the Apalachicola River seems to be more peculiarly adapted to the production of honey than any section of the south that I have visited; and in fact, I might truthfully say, it is fully equal to any place in the states, unless it may be in some of the irrigated Alfalfa regions of Colorado. Practically, the country along the river is one vast swamp, covered with water the greater part of the year and covered with a heavy growth of the famous tupelo gum which produces a honey very light in color, weighing fully twelve pounds per gallon and possessing the property of never granulating. Adjacent to the swamp lands, the ti-ti grows abundantly furnishing a honey but little inferior to the tupelo; yet, on the market, it will not class with the latter. More bees can be kept here in one apiary than any place I ever saw—as many as 600 colonies in one place, and the yield per colony has been fully as good as in yards where a less number is kept. It is said a complete failure in the honey crop is unknown, yet bad weather or the weak condition of the bees may result in a smaller amount being stored some seasons than in others.

There is a great difference in the opinion of bee-men here in regard to size of hives, the L frame is the standard, but how many in the hive is the question. The number advocating the 8-frame hive is growing less, and the number using the 10-frame is growing larger and some of those who have been in the business for years say that a 12- or 14-frame hive is none too small.

From what I know about the business here, and we going to start a new apiary, I would use a 10-frame "Draper barn," as I believe it a more suitable hive than a smaller one. I don't expect the bee-keepers will rush into this country very soon, but for fear some might pull up stakes and come, regardless of results, I will tell them a few of the drawbacks. The first is the question of health, and I will say that from June 1st to November 1st the country is full of malaria. The only means of getting from place to place is by boat and all supplies must be brought to the apiary through the swamps after being put off the steamboat. Your honey must be gotten from your apiary to where the steamboat can get it on board; that means that often you must load your honey on a "lighter" and have it towed through the swamp by a small tug-boat. There are but very few locations where an apiary can be established on the river bank and on ground elevated above over-flow, and if there is such a location the other fellow is ahead of you and got his bees there. In fact, range is almost unlimited, but good dry places to locate an apiary are scarce. A person might build up platforms on which to set his bees, but it has not yet been done that I am aware of. Success and failure are together here as elsewhere. Men with no experience will buy up two or three hundred colonies of bees and before a year passes there is "but a remnant" left and it is for sale, and the owner swears the business is a fraud. There are some who think the bees need no attention, so give them none, and a failure is the result. Summing it all up I will say that eternal vigilance is the road to success, and in no place is it more true than right here in Western Florida.

Marchant, Fla., Nov. 26, 1900.

* * *

The editor is requested by the publishers to announce that they will give away thirty-five dollars' worth of supplies, which may be selected from their 1901 catalogue, to BEE-KEEPER readers this season; and also afford each of our present readers an opportunity to pay their subscription far in advance, simply for addressing and sending out a few private mailing cards. When the W. T. Falconer Manufacturing Co. makes a proposition you may be assured it is purely business, and no catch game. Write to them to-day for full particulars.

OUR
EXTRACTOR

BEE OR SPIDER?

A special dispatch to the Philadelphia *North American* of September 23, from Paterson, N. J., says:

> Daniel Steinman, an athlete, died from the sting of a bee, after intense suffering. Physicians say the poison affected his heart.
>
> Steinman went to Oakland, N. J., a week ago, to camp. One night he awoke with a cry of pain. He said a bee had stung him behind the ear, and he showed a small red blotch, but nothing more was thought of the matter. He returned home.
>
> A slight pain back of his ear increased in intensity, despite his wife's efforts to allay it by household remedies. Steinman last Thursday morning awoke in such agony that he could not go to work.
>
> Dr. Alexander diagnosed the case as blood poisoning. On Friday it was found necessary to administer opiates to induce sleep, and Steinman's condition became serious. Every remedy known to science was tried, but without avail.

While the dispatch says it was a bee sting, the circumstance indicates a spider's bite. Bees are not in the habit of strolling around and stinging sleepers at night. They have other business to attend to at home.

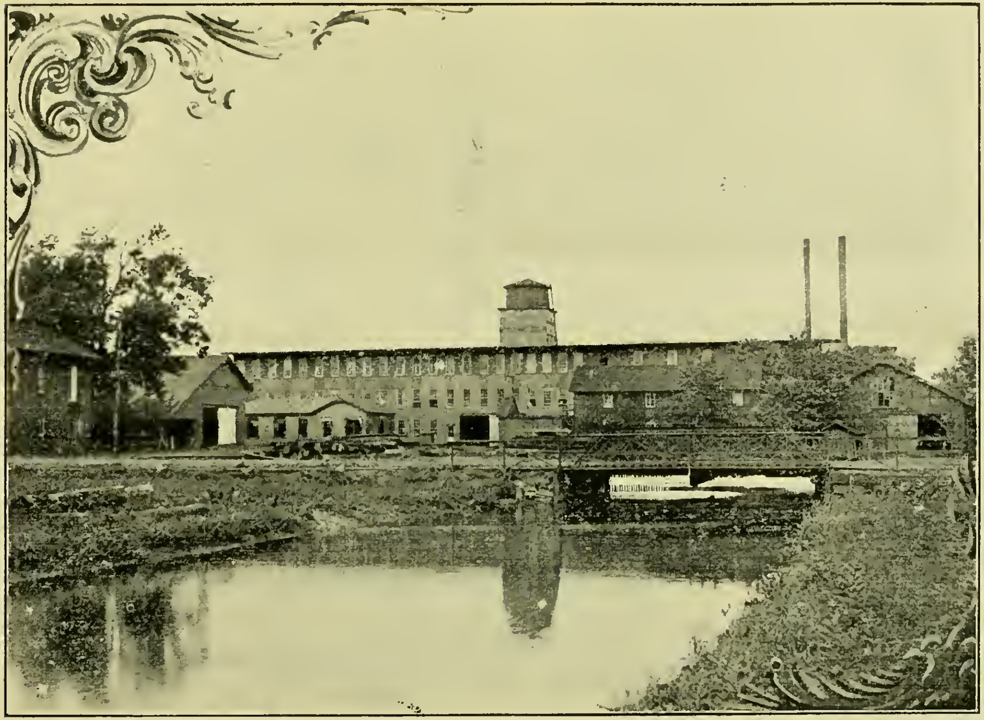


Photo. Reproduction. View of the W. T. Falconer Manufacturing Company's Main Building, West Side. (See page 10.)

ANOTHER VIEW.

We take pleasure in presenting to our readers, as promised last month, another view of the W. T. Falconer M'f'g. Co.'s factory, showing the west side of the main building. These two views, with the description already given, will give some idea of the changes and improvements that have taken place during the last few years in the appearance of this leading manufactory, which has aided so materially in the advancement of apiculture by supplying hives and appliances of such quality and accuracy as have not hitherto been approached by other makers. The pictures were made directly from photographs and are therefore "true to life." Next month, space permitting, we will show a group of our employees.

Our Amateur Table.

TOLD BY A MAN FROM TEXAS.

"Talk about your queer trades," said a man from Texas, "what do you think of bee-tracking as a means of making a living? I know several professional bee-trackers, who have never done anything else in their lives, and their skill is something almost incredible. What is the work like, do you ask? Well, I'll explain. Down in Bee County, in my State, where some of the greatest apiaries in the world are located, all honey is graded and marked according to the bloom from which it was obtained. For example, you may have your choice of cotton blossom, wild clover, horse mint and several other brands, each distinct in flavor. This seems mysterious to a stranger, because the bees range wild over miles of countryside; but it was discovered long ago that the colony from each hive or cluster of hives always draws its sweets from some one particular flower and religeously shuns the others. At the beginning of the honey-making season the proprietor of a bee-farm wants to know, of course, how much of each flavor he is going to have, as a basis for calculations; so he sets the tracker to work. The tracker, who is always a native Mexican, mounts his tough little bronco, rides over to a row of hives, waits until a big, healthy looking bee emerges, and, when it flies away on its daily quest, he gallops along in its wake. Often the feeding ground is miles distant, and the bee takes anything but a bee-line. On the contrary it makes long detours, frisks and frolics through gardens, loafs in shady groves and has a good time generally; but it is the rarest thing in the world for it to shake off its 'shadow.' How the Mexican manages to keep it in sight and distinguish it from other bees it meets en route, I have never been able to understand. The business seems actually to develop aspecial faculty. When the bee finally reaches its destination, the tracker makes a mental note of the variety of flower and then returns home. Next day he verifies his observation by following another honey-gatherer and then labels the hive and proceeds to the next one. When his task is done the apiary man knows exactly what he can depend on in the several flavors. The trackers are well paid—enough to let them loaf between seasons.—N. O. Times-Democrat.

THE QUEEN BEE.

The queen-bee is one of the most interesting creatures in the animal world. The strength of the colony, the output of honey—everything depends on the queen. If anything happens to the royal lady the bees do not form a republic, but they go to work to get another queen. It is a suggestive fact that in the bee world royalty is a matter of food. To make a queen it is necessary only to take an egg that under ordinary conditions would produce a worker, enlarge the cell, put in more and richer food and let the queen develop. It is to be observed, however, that it is only a worker larva, never a drone, that can be made into a queen. You may feed a drone forever on royal jelly, as the queen's food is called, and you will only kill him or get a drone. The queen-cells not only are larger than the other cells, but they are constructed differently—in shape something like a thimble and having a roughish exterior. When the queen is ready to issue from the cell she gnaws her own way out. The first thing she does after entering her larger domain is, sensibly, to eat.

Next, in the true royal spirit, she seeks her enemies, her rivals. There is a right merry time in a hive while several sovereigns are fighting for their various rights. If she finds another queen-cell from which a rival is shortly to come, she tears it down or gets her adherents to do the work for her. The bees have no tolerance for mutilated or imperfect creatures. They believe in the survival of the fittest, and the weaklings are mercilessly destroyed and cast out. If a satisfactory queen is hatched out the worker bees usually destroy the other queen-cells themselves at once. If two queens are hatched at about the same time, their majesties fight it out between them, and over the body of her prostrate foe the successful one passes to the throne.—New York Press.

BEE HUNTING.

Glen Falls, N. Y., Nov. 8, 1900.

Editor AMERICAN BEE-KEEPER: As the first inspiration of many bee-keepers has been drawn from a bee-hunting experience, it will not be out of place to say a few words about it here. For recreation, and as an out-door pastime, bee-hunting is most delightful. The necessary outfit is very simple. A small box with a glass cover will do. The box should be tight enough to hold honey or syrup.

We started one September morning with the box half full of honey, an axe, two pails and an ample lunch. We entered the forest at the nearest point and continued to the top of the mountain. On the left was a vast stretch of unbroken forest. Many an aged giant held a swarm of wild bees within the hollow of its trunk. We were then in a clearing grown up to goldenrod and other weeds. Catching a bee from a flower we clapped her into the box and held the cover secure until she began to fill herself with honey, when it was removed. Presently she took wing, circled around and darted into the woods. Soon she returned accompanied by others, and it was not long until we had a line established between the box and the tree which was her home in the forest. We then moved the box, with part of the bees, some two hundred yards along the clearing, releasing the remaining bees in the new location, very carefully. Thus we had established a triangle, the base of which was the edge of the woods and the apex, the bee-tree. By this means we were able to tell very nearly how far distant the tree was, and in what direction. We then went about a half mile into the woods and again released the bees; still onward they flew, and again we proceeded a like distance. Here, upon being given their freedom, the bees rose over the trees, then dropped suddenly down again. By this we knew the tree must be near. We proceeded to tap the trunks of the large trees until one gave forth a hollow sound; and this proved to be the home of the little worker. We took over eighty pounds of the most delicious honey from it—and with only three stings. C. W. PARKER.

SO SAY WE.

Spring Creek, Pa , Nov. 17.

Hello! brother bee-keepers over in Hatch Hollow-Wake up! and don't go to bed before nine o'clock; but let's sit up to the desk one of these long, cool evenings for one hour each month and make an exposition of our ignorance. knowledge and experiments in the management of bees and honey.

It looks a little as though we were going to get 16 to 1, although W. J. Bryan was not elected—that is, 16 cents to 1 pound of honey; if so, I would suggest that we contrive some way of keeping the bees that each queen can rear in one colony and keep only enough colonies in one locality to gather what honey is within their range. It seems to me that a hive could be made the right size to keep one queen busy in the brood-chamber through the season. If such should be the case, we would not lose the time that the bees consume in swarming and filling the brood-frames at a time when we would like to have them busy in the sections. If any reader of THE BEE-KEEPER has had experience with such a thought, please tell us what luck you had, and oblige the editor and readers of THE BEE-KEEPER.

I see by your November issue that you are anxious for the knowledge or guess-work of your readers in regard to those four questions on page 214. I should say that the egg was deposited there before the combs were taken from the hive, and the bees that clustered there had nothing to do with it. My opinion is that the bees had been separated from those in the hive so long that they knew they would not be admitted should they return, so they concluded to take up a vacated homestead. In regard to Dr. Miller's queen: The question can be answered in only one way. She was probably a young, prolific and industrious queen, chock full of eggs, and was anxious to deposit them somewhere; and consequently dropped them in a cluster of cells at the back end of the hive after having gone over the front yard in good shape. My treatment in such a case would be to give her a dose of No. 10 brood frame.

Yours respectfully, A. E. JOHNSON.

THE QUESTIONS ARE EASY.

Ringdale, Pa., Nov. 30.

Editor BEE-KEEPER: Those questions are easy; almost any body could answer them. First, as to what was the cause of the bees taking up their abode so near their own hive: The chances are about five to one that there was a queen in one of the supers. Bees would hardly form in a cluster on combs in a honey-house without a queen, unless it was very cold weather; and any man who was an associate of G. B. Jones and C. G. Ferris would know better than to leave his honey on the hives until cold weather. The little colony probably thought that they were to be hived on starters of foundation; and in circling around, the queen found the empty combs, and the bees formed in a cluster where the queen had lit. Then, being dissatisfied with their surroundings, they wished to swarm out and started a queen-cell, thinking that by so doing the queen would swarm out with them. The queen laid the egg that was found in the cell. The last two questions are somewhat easier than the first two. There was a laying worker present, and something wrong with the queen; probably she was reared from too old a larva. The remedy—give them a $200 queen. Yours respectfully,

WM. KERNAN.

ANOTHER SOLUTION OF THE QUESTIONS.

Ft. Pierce, Fla., Nov. 19.

Mr. Editor: According to my judgment most of the bees were young and did not know their way back to the hive. As to where the egg came from would say, one of the bees was probably moving an egg in the hive at the time when it was taken away: and, while still carrying the egg, crawled up and clustered with the other bees on the dry combs. Questions Nos. 3 and 4: The cause of the queen laying the eggs so thick was that she needed room and more bees to take care of the brood.

Hoping that some day I may be able to answer such questions correctly, I am, yours respectfully,

GEO. SAUNDERS, JR.

QUERIES.

YELLOW WAX AND SLOW COOLING.

1st. In rendering beeswax, what is responsible for the variation of color?

2nd. Will dark brown wax become bright yellow if cooled slowly?

3rd. Would wax of a bright yellow color ever result if a hurried process of cooling were employed?

ANSWERS.

1st. Wax is readily colored by various substances, and it is easy to incorporate into the wax the coloring matter contained in the pollen and dirt, when the mass of comb is so rapidly heated that the wax melts before the pollen is water-soaked. The same process (and boiling) also causes more or less of the propolis to combine with the wax. The receptacle in which it is melted sometimes affects it. Strongly alkaline water is detrimental. I break the combs up fine, submerge and allow to soak for a week or more in acidulated water and then heat slowly in clean water. Do not boil it.

2nd. Not necessarily.

3rd. Not from a "dark brown."

ARTHUR C. MILLER.

1st. Age of comb and impurities, such as dirt, the coloring matter it receives from the vessel stored or rendered in, etc. Where cappings or comb containing more or less honey are allowed to stand or steep for any length of time in a rusty iron vessel, the wax will be a dingy yellow; if in corroding brass, a greenish yellow, etc.

2nd. Cooling slowly helps to clarify wax by allowing all specks of dirt or foreign substances to more thoroughly settle to the bottom or rise to the top. But if the dark brown comes from that imparted by the vessel stored or rendered in, no amount of time in cooling will change it to a bright yellow.

3rd. Wax, when it first exudes from the wax-pockets of the bee, is white and, unless contaminated by some foreign substance, would remain white whether cooled slowly or rapidly in rendering. After a time, through coming in contact with the vapors of the hive and the cocoons from the brood reared in the waxen cells, the white wax is changed to a yellow color, the yellow shade becoming deeper with age; and the rapid or slow cooling has nothing to do with this shade, only so far as the latter gives a greater length of time for specks of dirt or rubbish to separate from the wax. By adding a quart of water and a pint of strong vinegar to every twenty-five pounds of rendered wax, when melting, the dirt will separate from the wax in one-half the time it would otherwise.

G. M. DOOLITTLE.

1st. The use of iron or rusty tin utensils is liable to darken the color of wax. The keeping of wax in a melted condition for some length of time purifies it from foreign substances which may be in it, and because of that often gives the wax a cleaner and brighter appearance; but I doubt about its causing any appreciable change of color otherwise.

2nd. No.

3rd. If wax has been allowed to remain in a melted condition for a long enough time, the slow or hurried process of cooling makes no difference.

O. O. POPPLETON.

1st. More or less coloring matter and other impurities from the old combs are responsible for the variation in the color of wax.

2nd. Dark brown wax does not become bright yellow by slow cooling. The impurities are so finely divided and held in suspension that they are not separable without the use of acid; at least I know of no practical way.

3rd. This question can hardly be answered by a simple yes or no. The larger and heavier the impurities are, the less time will be required for these to settle. In hurrying the cooling process many of the smaller particles would surely remain and thus impair the color. Wax made from new combs hurriedly cooled off would still have a brighter color than that made from old combs slowly cooled.

F. GREINER.

1st. In fixing the responsibility, there are many things to be taken into consideration, as indicated by the foregoing answers. Wax appears to become so effectually stained by contact with old cocoons as to make it impossible to render it yellow by other means than a treatment with sulphuric acid.

2nd. Never.

3rd. If the wax has not been stained to deeper or darker color, it would be as yellow if cooled in one minute as if ten days were consumed in the process. The length of time occupied in cooling, after the wax has been kept in a liquid condition by heat, for a few hours, has nothing to do with imparting a yellow color.

EDITOR.

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The offer of the publishers to give away thirty-five dollars' worth of supplies is worth investigating. It's a rare chance. If you miss it you'll miss it.

THE AMERICAN BEE-KEEPER

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THE W. T. FALCONER MANFG. CO.

H. E. HILL, - - - - - EDITOR.

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☞ Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER, Falconer, N.Y.

☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

EDITORIAL.

Do not fail to read the publishers' offer, on another page, of thirty-five dollars worth of bee-keepers' supplies free to BEE-KEEPER readers. It's an interesting proposition.

We have never had such a quantity of excellent matter for publication on hand as at present. We appreciate this interest which our readers are taking in the paper. Let the good work continue.

We learn with pleasure, through a private letter from a Canadian friend that Mr. John Newton, Thamesford, Ont., has been elected president of the Ontario Bee-keepers' Association. It is an honor of which Mr. Newton is worthy.

Don't fail to write for particulars in regard to the bee-keepers' supplies which the W. T. Falconer Manufacturing Co. propose to send free to readers of THE AMERICAN BEE-KEEPER this season. You will probably need some of them in June and July.

Our friend (and every bee-keeper's friend), G. M. Doolittle of Borodino, N. Y., may soon change the old address so long familiar to bee-keepers. We believe Mr. Doolittle is at present in Arkansas looking over the bee-keeping prospect in that state.

And still THE AMERICAN BEE-KEEPER continues to climb steadily up hill. The kind wishes of our friends who prayed that the present editor would not find that he had undertaken an "up-Hill" job' are being very satisfactorily granted. The pleasures, encouragement, hope and determination are ten-fold greater than when we began the work in 1898. The eleventh birthday of THE BEE-KEEPER, which it celebrates with this number, is the most cheerful and promising in its history.

With the good sense, honesty and courtesy which has characterized its editorials since its inception, *The Bee-keepers' Review*, referrirg to our discussion of the subject of clipping queens, in the October number, comments thus:

"I have no doubt that, after practicing a while 'on drones and workers,' as Bro. Hill suggests, one could clip queens successfully in the manner that he describes. I have never tried exactly the plan that he gives, but to all plans of clipping on the comb I have found the objection that the queen becomes frightened the moment she is touched. It is possible that with sufficient practice this objection can be overcome."

Certainly; and a great amount of practice is not required, either.

Bee-keepers who have anything in the apiarian line which they desire to exhibit at the Pan-American Exposition should correspond with Superintendent O. L. Herschiser, 1106 D. S. Morgan Building, Buffalo, N. Y. Exhibitions may be made without expense to the exhibitor, and awards will be made to meritorious displays. The selection of Mr. Herschiser as Superintendent of the apiarian exhibits insures to exhibitors the great benefits to be derived from the management of an experienced, painstaking and obliging gentleman—one who is one of our fraternity—who will be very glad to give any information that may be asked of him in regard to the matter. Mr. Herschiser earnestly requests all who contemplate making an exhibit to correspond with him at the address given above. New York will doubtless make a fine showing at the exposition as will several of the other northern states. Here is an opportunity for Florida, "the land of flowers," to distinguish her capabilities apiculturally. Will she do it? No, not Florida.

With this number we have discontinued the practice of sending the queens and dollars to contributors. We invite all our readers to contribute freely, and we shall pay cash for good articles, as in the past; but our staff of regular contributors for 1901 has been selected and the best that is to be had of sound, practical bee-keeping sense is assured to our readers for the next twelve months.

In the amateur department we shall endeavor to encourage interest by offering special premiums for good letters and solving questions relating to bees and bee-keeping. The questions asked on page 214 of THE BEE-KEEPER for November are still open. To the dollar already offered we will add: The paid-up amateur bee-keeper who first sends a correct reply to all four questions will have his picture published in the amateur department—providing he, or she, will send us a photograph from which to have the engraving made. Beginners are especially urged to compete. Veterans and specialists are barred.

THE BEE-KEEPER FOR 1901.

This number opens the eleventh volume. The present and last two or three numbers of THE BEE-KEEPER will forecast the character of the paper during the first year of the new century—1901. The volume just closed marks a very successful period in the history of the paper, a fact largely due to the friendly interest shown by its readers.

In undertaking the pleasant task of managing his department for the fourth year, the editor does so with very encouraging prospects of continued success, in the line of extending the subscription list, and in his ability to give bee-keepers a thoroughly up-to-date journal; for we have secured a staff of regular correspondents who are each and every one not only successful apiarists, but interesting writers. While we are pleased with the accomplishments of the past year, we shall endeavor to continue to improve the journal just as fast as the support will permit; and the publishers have generously offered to compensate these who will co-operate with us in extending that "support" as will be seen by referring to another page.

Let every amateur reader take his place around the "Amateur Table," and by his questions and contributions to that page, add life and interest thereto. We want every young bee-keeper to feel that this is his privilege, and to know that he is welcome—whether man, woman, boy or girl. We are confident that this could be made one of the most interesting and instructive departments of THE BEE-KEEPER.

TOBACCO SMOKE FOR INTRODUCING QUEENS.

The use of tobacco smoke in introducing queens has long been used and advocated by Mr. Henry Alley, but it appears that until recently its real value has not been generally appreciated. *The Bee-keepers' Review* now appears to regard tobacco smoke, in introducing, with much favor. We have on several occasions used it for this purpose with very satisfactory results. It is a fact, however, that of the many hundreds of queens which we have had occasion to introduce in the past ten years, we do not remember of a single failure to have the queen accepted by the bees, regardless of the method of introducing. The tobacco smoke method, though, has been used in instances where it would be unsafe to attempt almost any other plan; such, for example, as introducing ten or a dozen queens into a single colony, simply separated by divisions of wire-cloth into as many compartments as there were queens. This we have done with perfect success; and that in a colony made up entirely of old bees, without brood of any kind. The necessity for such a severe test would seldom arise, yet we have found it desirable to do so at times, and found it practicable. But very little of the smoke is necessary, and it is not advisable to use it at all at a time when robbers are troublesome. If the tobacco is placed in the smoker and the fire well started, one very light puff is all that is required. A whiff or two from a pipe or cigar answers the purpose very well.

THE WAX "SECRET."

Quite to our surprise, the *American Bee Journal* not only declares its sincerity in requesting an explanation in regard to our hint that it was foolishness to set forth "slow cooling" as the secret of the bright yellow color often seen in beeswax, but very emphatically defends the idea as a truth. We regret that our space will not permit a reproduction of the *Journal's* lengthy comments, which would occupy more than a page; but we cannot refrain from catching a little of its Vesuvian overflow:

"As a matter of fact, the slow cooling is a *sine qua non* in ninety-nine cases out of a hundred, and perhaps necessary in the one-hundredth case. As Mr. Hill mentions, some wax from old combs needs the addition of acid to bring out the bright color; but that does not take away the necessity of slow cooling, and there is practically no bright yellow wax without slow cooling."

If any reader of THE AMERICAN BEE-KEEPER has a quantity of dark beeswax which he desires to transform into bright yellow, he will note with pleasure that the secret is now out. Simply melt it and cool it slowly (?).

Wax should be kept hot after it

is melted, to allow the dirt to separate from the body of wax; then it should be cooled slowly to prevent cracks or checks in the cake, and thereby render it more easily removed from the mold. Keeping it in a thin liquid state by the constant application of heat is essential to the purifying process, and renders the product more free from specks of dirt: but all this is foreign to the absurd assertion that slow cooling is the secret of obtaining bright yellow wax.

It may be that the editor of this journal lacks experience, as inferred by our worthy contemporary; but we are quite willing to risk our reputation on the assertion that "slow cooling is the secret of getting bright yellow wax," as the veriest nonsense, the *American Bee Journal* to contrary notwithstanding.

We have asked the opinion of several of our contributors in regard to this, and their replies appear in this number. It will be noted that, where the questions were understood correctly, the verdict coincides with our own expressed opinion.

Editor York should know that very many of the business "secrets" of a quarter of a century ago are now dead.

HUNDRED-DOLLAR QUEENS.

That the practice of placing a fabulous valuation upon breeding queens is becoming very common is a fact which was noted in these columns some time ago, calling attention to the ease with which a queen breeder could take advantage of such a drawing card in his advertisements as the possession of a hundred-dollar breeding queen. Editor Root of *Gleanings*, who goes them one better, by advertising a two hundred-dollar breeder, very frankly acknowledges that the thing does have the appearance of a money-making scheme, but is evidently sincere in the opinion that the great superiority of his stock justifies the valuation, and says: "If Editor Hill could see what that queen really is, he would be as enthusiastic as I." Brother Root must have had a private tip in regard to our weak points; for if any one thing more than another tends to arouse our enthusiasm it is good stock, but he completely fails to grasp our idea of the matter. THE AMERICAN BEE-KEEPER would be the last to offer discouragement to the work of improvement in our stock. In fact, we hold that there is but one branch of our industry which is entitled to more immediate and thorough attention than this. This, however, does not alter the obvious fact that dollars and cents is a most misleading, inconsistant and unfair standard by which to designate merit in breeding stock; and that it only invites deception and imposition for personal gain, among the unscrupulous. Already the opportunity has been recognized and appropriated to the extent of a promise that it will be thoroughly vulgarized within a short time.

If a breeder pays an excessively high price for a queen in which he recognizes corresponding merit, or if he refuses a bona-fide offer of such a price, we presume there is no valid reason why he should not be entitled to any benefits which might accrue to him as a result of a public statement of his sagacity. That is one thing; but for a breeder to simply "estimate" the value of his breeding queen away above all reason as an advertising dodge—a practice that has and will continue to result from such an insignificant system of expressing merit in our stock, is another matter.

Gleanings has been too long in the field to require any suggestions from this quarter in regard to the purely "fake" schemes existing in the queen business; and we therefore beg to suggest that Mr. Root consider a view of the question from our point of vantage, and let us know if the obvious necessity for a different yardstick with which to measure the value of our stock does not appear.

QUEENS FROM THE MAILS.

One of the most interesting discussions at the National Convention was that which followed the paper of Mrs. H. G. Acklin, on the subject of "Queen-rearing by the Doolittle Method." Whether or not it is injurious to queens to be confined in a small mailing cage and thus transported, is a question which elicited particular attention.

Dr. Mason had reason to believe that it was injurious. H. F. Moore thought that where the mail sack is taken from a crane by a flying train, going at the rate of forty miles an hour, the queens would not be worth much after such an ordeal had been passed through. E. Kritchmer knew of one instance where every bee in the cage had been killed by throwing the mail pouch from a fast train. Mr. Poppleton stated that he had quit ordering queens by maii entirely. The inference was, of course, that this resolution of Mr. Poppleton's was a result of the injured condition of the queens he had received in this way; but in personal conversation with him. later, the editor of THE BEE-KEEPER learned that such was not the case; and Mr. Poppleton expressed regret that his statement had not been followed by an explanation setting forth the real cause; which, said he, "is the chance one takes of importing disease." Mr. Hutchinson's experience had been that there was something about the close confinement of a queen during the laying season which tended to weaken her laying powers. Mr. N. E. France had noticed throughout the state of Wisconsin that the complaint was generally charged against especially tested queens, and it was his opinion that sending a laying queen by mail was injurious to her. Frank Coverdale had received a batch of fifty queens from Texas, which turned out just as satisfactory as if he had reared them himself. Mr. E. T. Abbott had been getting queens through the mails for thirteen or fourteen years and had never had an instance of a queen's being injured, excepting in one instance where the bees and queen were all dead. Some which Mr. Abbott had received from Jerusalem were in every way as good as those reared in his own yard.

To take a queen from active egg-laying and confine her in a mailing cage for several days is such a very abrupt change, resulting in a suspension of her natural function, that even a casual thought of it impressses one with the probability of its detrimental effect; and, indeed, it may be that very prolific queens are sometimes injured in this way. We believe, however, that it will rarely be found that the injury is permanent. Some of the best queens that we have ever owned have come to us through the mails, during the honey season. Some very inferior ones have likewise been received. We might be prone to charge this inferiority to the above cause, but the most inferior lot of queens that we have ever bought were confined only about twenty-four hours; and then, upon three full frames of brood and bees. There were fifty of them in the lot, and but five or six of them proved to be worth keeping, although they were of the high-priced kind.

UTTER FOOLISHNESS.

Much interest has been shown during the past month or two in a law suit which has been in progress in Orange County, N. Y., wherein two brothers by the name of Utter are engaged. One of the Utter brothers is a fruit grower, the other a bee-keeper. The former avers that his brother's bees have been guilty of puncturing and greatly damaging his peach crop. It appears that the bee-keeping brother is a man of limited means, and was therefore unable to procure such counsel in his defense as the National Bee-keepers' Association would have quickly provided, had Mr. Utter been a member of that organization and promptly referred the matter to General Manager Secor. As it was, the justice before whom the case was first heard rendered judgment against the bee-keeper for twenty-five dollars and costs. General Manager Secor, of the National Association, heard of the case, and immediately authorized an appeal to the County Court, pledging one hundred dollars to fight the case; as bee-keeping interests and common justice demand that a reversal of the justice's decision be secured.

With reference to this case the *Lewiston Journal* (Me.) well says:

> A New York judge has delivered a decision that renders the owners of bees liable for damages for trespass on the property of other people. This is a case of justice run mad. Should it be sustained in the higher courts and extended to other states it would simply kill the bee industry. We can control our cattle and sheep but we can not control one flight of our bees. It is clearly evident that the fools are not all confined to the common classes. When judges get to rendering such decisions as this it is high time for them to step down and out, so as to make room for some one possessed of common sense.

From *Gleanings in Bee Culture* we learn that the evidence presented in behalf of the plaintiff's claim was of the most absurd character, a sample of which is that witnesses had seen the bees "stand on their hind legs, puncture or probe the fruit, then fly away." Others, it is said, stated that "bees could bore holes through boards, and would therefore puncture fruit." The plaintiff himself said that the bees stung his trees and killed them and they ate up his fruit.

The editor of the *Rural New Yorker* has expressed the hope that bee-keepers would leave no stone unturned to secure a reversal of this absurd decision against the bee-keeper. A contributor to his excellent journal, however, avers that when peaches and plums are ripe enough to eat from the hand bees will puncture them; notwithstanding the fact that the most severe and thorough tests, conducted by experimental stations and agricultural colleges, have repeatedly disproven the statement. Bees have been confined with ripe fruit until they starved to death, time and again; and still certain agricultural editors grasp for the scissors at the sight of the item which states that "Bees Do Rob Fruit," without even hinting at the almost endless chain of evidence to the contrary. There seems to be a singular fascination in these libelous statements against one of the most important requisites to successful fruit growing. Surely the National Bee-keepers' Association has a work to do, and the miserable, half-hearted support which it has met thus far is nothing short of a disgrace to the fraternity whose interests it has undertaken to defend. Many of the complaints we receive, of injustice, low prices, commercial and local obstacles of various kinds, bewailing prevailing conditions, come with very poor grace from persons who have not, and appear to be unwilling to contribute a dollar a year in order that these things may be changed.

LATER. GOSHEN, N. Y., Dec. 19.—The case of Utter *vs.* Utter was concluded to-day. It resulted in a victory for the bee-keeper, Jeffery W., from whom his brother, Wm Utter sought to recover $100 damages, claiming that his brother's bees had partially ruined his peach crop. Bee-keepers throughout the country will rejoice to learn of this triumph of justice. Credit for the victory is undoubtedly due the influence of the National Bee-keepers' Association, and the efficient work of its General Manager.

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white" "No. 1, dark," etc.

CHICAGO. Dec 17.—We have but very little demand for honey at present, while the supply is fair—apparently sufficient to supply the demand. We quote as follows: Fancy comb, 16c.; No. 1, 15c.; extracted, 6@7½c. Beeswax is in good demand at 28c. There is an abundant supply of all grades of honey except fancy white comb, which is limited to small amounts that are promptly sold.

R. A. BURNETT & CO.

BOSTON, Dec. 17.—Demand for honey is fair with fair supply. Price of comb, 15@17c.; extracted, 6½@7½c. The demand for beeswax is light with light supply. Prices, 27@29c. Comb honey is naturally moving slower, owing to the higher prices.

BLAKE, SCOTT & LEE.

BUFFALO, Dec. 12.—Our present demand for honey is but moderate; mostly for the holiday trade, while the supply is more liberal. Price of fancy comb, 15@16c.; extracted—none wanted over 5@7c. Fair demand for beeswax with moderate supply, at 25@28c. Demand for honey has fallen off greatly, owing, we think, to too high prices.

BATTERSON & CO.

KANSAS CITY, MO., Dec. 21.—Honey is in fair demand at present with light supply. We quote as follows: Comb in 24-section case, $3.50@$3.75; 12-section case, $1.90. Extracted, 60-pound cans, 8@9c per lb. Demand for beeswax is light with light supply—just about enough to fill orders. The price of honey is so high that it is cutting the demand to some extent.

W. R. CROMWELL PRODUCE CO.

NEW YORK, Dec. 17.—There is a good and steady demand for all grades of comb-honey, but very little coming into this market. If producers have any on hand we advise marketing it at once. We quote: Fancy white comb, 15 @ 16c.; No. 1 comb, 14c.; No. 2 comb, 12 @ 13c.; buckwheat comb, 11 @ 12c Beeswax firm and in good demand at 28c. per pound. No large demand for buckwheat extracted as yet; some sales being made at 5½c.

FRANCIS H. LEGGETT & CO.

LITERARY NOTES.

EX-PRESIDENT CLEVELAND'S MAGAZINE ARTICLES.

Ex-president Cleveland is writing for the Saturday Evening Post a series of strong articles which will appear in the magazine during the winter months. Some of these papers will deal with political affairs, and others with the personal problems of young men. They will be Mr. Cleveland's first utterances in any magazine on the questions of the day since he left the White House.

Mr. Cleveland's opening paper, which appeared in the Saturday Evening Post of December 22, discusses in a masterly manner a most important phase of our national politics.

Outing opens the century with a number on the highest plane of the literature and art of sport, travel, adventure and country life. Some of the articles are entitled as follows: The Moonlight Trails, The Automobile in French Recreative Life, Rifles for Big Game, Portugese East Africa as a Hunting Field, The Old and the New in Harness Training, Winter Hunting in the Rockies, The Pioneer Sportsmen of America, Gambel's Partridge, the Elusive Game-bird of Arizona; Sportsman's Club of the Middle West and Army and Navy Football. All in all, Outing's January number is an exceptionally strong and pleasing one.

With the January number Modern Culture drops the old name, "Self Culture," from its title page and cover and takes its rightful place among the leading literary magazines of the country. It will no longer be associated in the public mind with purely educational periodicals. It has ceased to be a class publication and has become in the broadest sense of the term a magazine of culture. Literature, art and science, history and description are represented in this number by competent writers. John H. Tranter writes an account of the Pan-American Exposition, which, with its elaborate illustrations, will be to many readers the most attractive article in the number. Life in the Philippines before the Spanish war, New Year's Day in Paris and The Romance of Winter are three delightful articles. Fiction is strongly represented by Marion Harland and Charles W. Chesnutt. The departments are as usual replete with interest.

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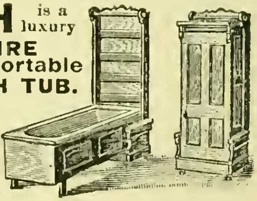

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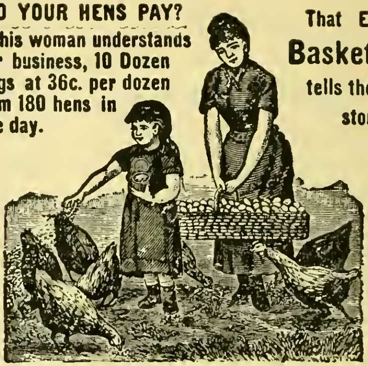

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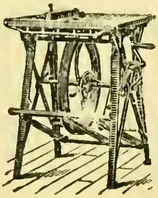

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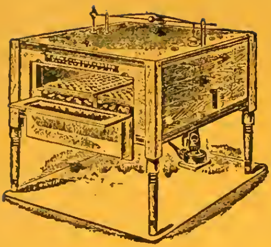

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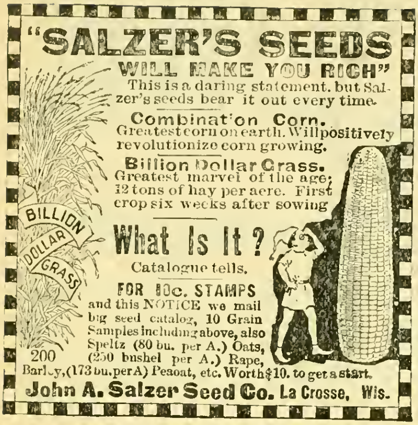

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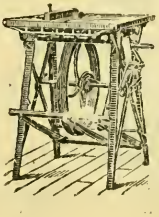

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MR. ARTHUR C. MILLER.
(See page 25.)

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI FEBRUARY, 1901 No. 2

NOTES FROM THE ONTARIO CO. (N.Y.) BEE-KEEPERS' CONVENTION.

BY F. GREINER.

THE bee-keepers of Ontario County and vicinity convened in Canandaigua, as had been advertised in the bee journals and local papers, on December 13 and 14, 1900.

The sessions were well attended, quite a number of counties being represented.

An important change was made in the Constitution, which on the face may seem unimportant, viz.: Voted to raise the membership fee from 50 cents to $1. Half of this amount is to be sent to the National Bee-keepers' Association; thus each member of the local association will also be a member of the National.

The advantages of belonging to the national body were brought vividly to the minds of the bee-keepers by the recent Utter case. The interest of the bee-keepers and the safety of the pursuit are at stake. Awake, brother bee-keeper, send in your mite, join the National Association and thus help carry on the war against ignorance and malice.

The programme was carried out with some changes. In his address of welcome Mr. H. L. Case spoke in a very interesting manner. He said:

The interest in a business is largely governed by the success of those engaged in the pursuit. As a rule the bee-keepers are determined and enthusiastic and even after years of small profits they hold on with hope. If it were not for the fascination and love many a one would drop out of the ranks. We are living in an age of great advancement. I remember well, when a boy, my father keeping many skeps of bees; yet I don't remember at that time that I ever saw a queen bee, and I don't think my father ever did. At times my father would leave me all alone with the sixty or more colonies of bees, and what a time I had—a swarm hanging in the utmost top of a maple tree, another clustered in a crotch of an old apple tree, or amidst the wild grape vine in the fence, prime and after-swarms all in confusion, anough to drive one mad; and only a boy to untie the Gordian knot. What a difference between then and now! With queen's wings all clipped my boy can take care of an equally large number of colonies with ease. Instead of the unsightly six-pound box, the neat one-pound section, bee-escape to remove the filled boxes, etc., etc. It was a great step in advance when father bought of Mr. Langstroth himself the right to make his hive. I can well remember the pleasant old gentleman. At those times, it seems, we had better honey seasons, one colony sometimes yielding twenty to twenty-eight four-pound boxes. As a class we bee keepers differ in many respects from other people. We are pleasant to meet, we are hobbyists, experimenters, giving freely to the bee-fraternity anything new we may have discovered etc. To close, now, we extend a cordial welcome to all present, visitors, friends, members of the Association.

Of the President's address it will suffice at this time to say that he outdid himself in all previous efforts.

Mr. W. Z. Hutchinson then spoke on

the production of comb honey. A very important point he made was this: As soon as it is advisable to put on the honey boxes or supers give a super full of drawn comb. This will keep the honey out of the brood-chamber and start the bees right. Empty sections, or such filled with foundation, do not fill the bill here. When the bees once get in the habit of storing their honey above, they are apt to continue thus throughout the season; when they form a habit of filling the brood-chamber with honey at the beginning of the season, they then are slow to enter the sections any time after. Mr. Hutchinson had observed that by giving supers full of drawn comb a case of honey was gained above what other equally as good colonies had made supplied with empty sections. The swarms are treated according to the Heddon plan. Mr. Hutchinson had done a good deal of experimenting with young swarms, hiving them alternately on combs, foundations and starters. The combs always gave the poorest results with him, and the foundation, aside from insuring perfect combs, proved a total loss. No young swarm is allowed more than five L frames or one section of the Heddon hive. Contraction is only practiced on the young swarms. He has come to the conclusion that it is not always profitable to supply the bees with foundation. During a good flow he claims wax is produced anyhow and if there is no opportunity to use it somewhere a large portion of it is lost. And after all he expressed his opinion that good, straight worker combs were not too dear at the expense of the foundation.

Mr. E. R. Root then gave a talk on bee diseases. He can easily tell foul brood from black brood, but cannot so easily tell pickled brood from black brood. When the perforations through the cappings have a ragged edge you have foul brood; when not, it is very likely black brood. It seems the disease must be making considerable progress and is distributed over a large territory, for two or three samples of brood are received by the Root Company every day. Mr. Root takes these samples to the boiler-room, opens the package, examines the comb, then burns everything and disinfects his hands.

F. Greiner explained the Dzierzon theory and the Dickel theory, and stated that a thorough microscopic examination of bees' eggs had been made by the University of Freiburg, Germany, and that among 272 eggs taken from drone comb, only one egg was found to contain sperm, while among the 62 eggs taken from worker comb all were found to contain sperm. He said further: Although we know that a queen larva receives slightly different food than a worker larva, he cannot believe that this difference in the food can cause a differently constituted bee to develop, but that we must seek a different explanation. We do not note any such results in raising other stock.

Mr. O. L. Hershiser spoke of the Pan-American Exposition, in particular as to the bee and honey exhibit. The proposition is to erect a commodious building to accommodate the bee-keepers. Bees alive will be exhibited in regular yards as kept in different lands, and articles from the bakery, into which honey has entered as an ingredient, are also to be shown. Mr. Hershiser says that the New York bee-keepers will be allowed to exhibit at least 2,500 lbs of comb honey and the same of extracted. The latter is wanted in bulk, the State to furnish the packages in which it is to be exhibited; the State will also furnish the cases for the comb honey. All bee-keepers of New York who have any honey suitable for exhibition should address Mr. Hershiser. He will buy the honey right out-and-out, which, however, he will not do next year when the new crop comes in. It should further be stated that no exhibitor will have to pay any freight charges. On request the honey will be returned to the exhibitor or such disposition of same will be made as he may desire.

Mr. Perry read a short paper on "Home-raised Queens versus Imported." He holds that we must grow our own queens in order that they may be acclimated and adapted to one's locality and management. By continuously producing comb honey the bees, he thinks, will develop into a comb honey strain. If you practice cellar wintering they become a strain that will winter well in the cellar etc. He believes that most of the money we have paid out for queens has been worse than thrown away. Mr. Olmstead could not see that it could have any influence upon the progeny of the queen what sort of work the worker bees were kept doing, as they had nothing whatever to do with reproduction. The discussion swayed back and forth and at times got into rather deep water. Mr. Hutchinson thought it advisable to introduce new blood from time to time if that blood was superior, and that the honey producer should test the purchased queen in his own yards. Mr. David Coggshall reported that the introduction of a few purchased queens had made a whole yard a very vicious lot with him.

Mr. Hutchinson delivered an address on feeding back extracted honey which was of interest to the comb honey producers. The details may follow at some future time.

The Dutch-English dialect recitation, "The Living Beehive," by young Master Case, son of Mr. H. L. Case, was greatly enjoyed by all.

The Question Box, conducted by Messrs. Hutchinson and Root brought out many good things.

Nearly all the old officers were re-elected. Their names are as follows:

W. F. Marks, Chapinville, President.
H. L. Case, Canandaigua,
John Page, Seneca Castle,
Chester Olmstead, E. Bloomfield,
Vice Presidents.
F. Greiner, Naples, Secretary.
L. B. Smith, Vincent, Treasurer.
E. H. Perry, Manchester,
Honey Inspector.

The meeting then adjourned.

FEBRUARY WORK.

Some Good Advice for the Inexperienced Bee-keeper.

BY ARTHUR C. MILLER.

FEBRUARY is a trying month to the enthusiastic novice and amateur bee-keeper. for there seems to be nothing that can be done to, with, or for the bees. Well do I remember the bright February day, twenty years ago, when I got my first colony. I had bargained for it some time in December and I fear I wore the life out of the kindly old gentleman, until, perhaps in sheer desperation, he permitted me to move it that February day. 'Twas a risky thing to do, but I had the "fever" and bees I must have. So you may see I know the feeling of the enthusiast to want to be doing something among the bees. Perhaps the hardest lesson to learn, and also the most important, is to let the bees alone at all unseasonable times, but learn it you must if you wish to get the most pleasure, as well as the most honey, from your bees.

Except to see that the entrances are free from obstructions and that the covers are secure, there is really nothing to be done in February to bees wintered out of doors. In looking to see if the entrances are clear do not do much poking inside; if the colony was in a fairly strong condition in the fall they will keep the refuse pretty well cleaned out, and much poking about at this season only disturbs the bees. But, you may do much for the bees at this season in the way of preparation for warm weather. Perhaps my suggestions may seem more for the benefit of the bee-keeper than for his bees, but what helps him makes it better for them. Devote your spare time this month to an overhauling of your hives, supers, implements etc. See if your empty hives are firm; if not, then nail them, and if they are beyond such repair chop them up for kindlings. Go over the supers in the same way. Next see if you have hives ready for as many swarms as you expect; one for each present colony is enough unless you are planning to increase very rapidly. Also see that you have at least one extra hive body for each colony you have, for when wanted they are wanted very much. Attend to all painting. An abundance of frames is almost a necessity, and some of them should be fitted with one-inch wide starters of foundation. Full sheets should not be put in frames until nearly time to use them. If you are planning to produce honey in sections, these should be folded and starters or full sheets put in them. If you lack any of these supplies, order them at once.

The next thing to do is to look over your tools, the first and most important of which is the smoker. If yours is wheezy and wind-broken and generally out of repair get a big new one, paint the boards of the bellows, oil the leather and give the tin a coat of asphalt varnish, and you will be glad many times over bye-and-bye. Next, if you have not a modern foundation-fastener, get one; that is, if you produce any honey in sections. A honey-extractor is an absolute necessity whether you make a specialty of section honey or not; so, if you have none, get one of some kind—a reversible one if you can afford it. There are also many convenient accessories, such as queen-excluding honey-boards, drone-traps, Porter bee-escapes etc., that help in many ways and add to the pleasure and often to the profit of the pursuit, but which are not absolutely necessary.

Perhaps you think I am cutting out rather an expensive contract for you. At the start, maybe yes, but in the end, decidedly no. For several years I tried to get along with all sorts of makeshifts and I speak from both unpleasant and costly experience. The best is the cheapest in the end and the more complete your outfit the greater pleasure you will be able to get from your bees, besides the minimum of labor in handling them.

Providence, R. I. Jan., 1901.

"I'LL PULL AND YOU PUSH."

BY G. M. DOOLITTLE.

NOT long ago a lady told a little story that has caused me to do some thinking ever since, and as I was thinking about it to-day I concluded to tell it to the readers of THE AMERICAN BEE-KEEPER, together with a few of my thoughts on the same.

The lady went out calling one beautiful afternoon in October, but nothing out of the ordinary happened at the first place she stopped. When she rang the bell at the second place she waited some time before she heard any response. Then a door opened and shut somewhere upstairs and presently there was the sound of little feet coming down child fashion, both feet on a stair. The knob turned and there was an effort to pull the door inward, but the task was too much for the little hands inside. In vain they twisted the knob and tugged at the door; it stuck on the threshold and refused to budge. She was just about to lend a hand of her own accord, when a small and almost breathless voice said, "I'm 'fraid I tant let you in, 'cause the door sticks so. Would you please help me a bit? I'll pull and you push, then maybe we can get it open." "Very well, I'll push," answered the lady, and when her effort was added to that of the little lad within, the door swung hospitably open. Yes, his mother was home, he said, in answer to her question, and would be down in a moment. So she sat down to wait, and the small boy climbed the stairs again. "A lady wants to see you," she heard him announce; "I 'most couldn't let her in, mother, the door stuck so bad. But I pulled and she pushed, and then it had to come. We were too strong for the old door, bofe of us together." The lady smiled as she heard him chatter away, and soon the mother came.

Some way that little story has gone with me ever since I heard it: "I'll pull and you push." So many good enterprises are often hopelessly stuck on the threshold because a pound or two of pressure is lacking to start them, those looking on saying "If the thing goes and proves good, then I am in for it," often allowing the good thing to fail because they are not willing to push a pound or two at the start. So many projects in bee-keeping often come to nothing because those who have undertaken them are not strong enough to overcome the first point of resistance, and we, perhaps thinking that we cannot do much, excuse ourselves from doing anything to help them on. We forget that two times two are four. We do not stop to consider that our little, added to another's little, might make an adequate amount to move the thing successfully. We do not estimate aright the strength of "both of us together."

And now a thought regarding THE AMERICAN BEE-KEEPER. Editor Hill is pulling with all his might to make it the best bee-paper in the world. Are the readers pushing as they should? Every reader should be interested in making it the best bee-paper when they know that Bro. Hill is pulling till he is "almost breathless." Bro. Hill can do a lot toward making a bee-paper alone, but history has told us that no bee-paper can live long where none but the editor contributes to its columns. And thus it comes about (it is not expected that Bro. Hill will see this) as in the story, that the strongest force is really on the "push" side. The lady on the outside was a stronger force than the little boy on the inside. So in the case of any bee-paper, the stronger force toward its success is its contributers. Therefore, brother and sister reader, the success of Bro. Hill's undertaking depends very largely on you. Will you push? But I hear someone asking "How shall I push?" Just as you would at anything you wished to do—in your own way. You have ways of working at bee-keeping that no one else has, and what is wanted is for you to push in the matter of making THE AMERICAN BEE-KEEPER the best bee-paper in existence by telling us occasionally just how you do some of the things which prove successful with you. Tell it your own way and in your own language, just as the lady pushed with her own hands, and then with all of us together we shall be "too strong for the old door."

Borodino, N.Y.

MR. ARTHUR C. MILLER

In our series of portraits of distinguished bee-keepers, we are pleased to be able to present a recent and excellent picture in this number, of Mr. A. C. Miller, of Providence, R. I., the city of his birth.

Mr. Miller is a born horticulturist and bee keeper, being especially enthusiastic upon the latter subject; and has been from childhood a diligent student of apiculture. It is to him that we are all indebted for the hot-plate method of fastening foundation in sections, as the system was invented by him several years ago. He has recently, we believe, invented a machine for uncapping honey. This machine has not yet been placed on the market, but if the practical tests to which it is now being put, prove as successful as anticipated, the inventor's fame will live with that of Hruschka and Mehring.

In a recent letter Mr. Miller concluded with this inspiring sentence: "I believe bee-keeping is still in its infancy—that the future will see great developments." The thought at once came in response, "The extent of future developments will depend entirely upon the number of progressive minds, such as your own, which become identified with the pursuit." Would that there were more of the bee-keeping fraternity holding such optimistic views; for the development of the industry rests upon the shoulders of such.

Mr. Miller's entertaining and instructive style, as a writer, has been demonstrated in the past; and it is with pleasure that we count him among the regular contributors to the columns of The Bee-keeper for 1901.

QUERIES.

CLIPPING QUEENS' WINGS—ORIGIN OF FOUL BROOD.

The following questions are propounded, with a request for a reply through these columns, by J. W. Tefft:

First. If I can run my bees for comb honey without swarming, what is the use of clipping the wing of the queen?

Second. What originates foul brood? Is it because of there being no ventilation in the hive, or is it caused by wintering bees on the old honey of the previous winter's stores; or, is it caused by the freezing and thawing in single-walled hives?

ANSWERS.

First. The practice of clipping is recommended only for those who find or believe it to be advantageous. We should, however, prefer to have all queens clipped, even if swarming never occurred.

Second. Foul brood is not caused by any of the conditions mentioned. As to its origin, it would probably be no more difficult to tell the origin of small-pox. We have never learned of an instance where it came spontaneously into existance. The style of hive, Mr. Tefft may feel assurred, has nothing whatever to do with originating, fostering or curing the disease.

* * *

If you are sufficiently interested in the publishers' proposition to give away thirty-five dollars worth of bee-keepers' supplies this season, to write for particulars, it is almost certain that your subscription to The Bee-keeper will not cost you a cent for some years to come.

KILLING BEES WITH KINDNESS.

BY L. E. KERR.

We often see bee-keepers, especially beginners, continually fussing with their bees. Do not tinker at your bees every day. When bees have been tampered with it takes them two or three hours to get settled down to the natural order of things again, and gathering honey; and sometimes when their hive has been hastily taken apart and combs taken out and handled, they will be more or less confused for a whole day. The harm done by handling the hives is still greater in winter. If the bees are not killed outright they will be worthless the next summer. If from curiosity or a desire to learn something about your bees you wish to be continually handling them, select a colony or two for the purpose and do not be disturbing all you have, especially in the spring. Colonies carelessly disturbed in early spring before fruit bloom, will sometimes destroy their queens. When the bees really require your attention, give it, and then quit. Do not keep them stirred up till you have doctored them to death and then think that all who say there is still money in bees are either fools or dishonest.

Hurricane, Ark.

A Singular Battle.

A singular battle was witnessed recently in an English apiary. A hive of bees was besieged by a large swarm of wasps. The bees made valiant sorties to try to drive away the besiegers, and the wasps made furious assaults to drive out the bees. The battle raged for two days, at the end of which time the bees evacuated the hive and the wasps took possession. They are now the undisputed masters of the hive and are reveling in the store of twenty pounds of honey which the bees had gathered there.—*House and Farm.*

DRONE-REARING.

BY SWARTHMORE.

It is now the last of October and I yet have a lot of fine drones in flight on pleasant days. I shall preserve them as long as possible for experimental purposes in securing long-tongued golden bees. I have had no trouble the past season to secure all the drones I wanted from the fine queens. I used several different methods to encourage their production and then took good care to preserve tbem after I had secured them, If one continually takes away the drone eggs from a colony that feels the want of male bees and supplies plenty of empty comb that has been polished up by queenless bees, I believe a shortage in drones should never occur. By tiering empty bodies above those colonies containing the drone queens and placing from time to time any and all brood and honey one knows not what else to do with, during midsummer time, plenty of drones will be flying at a time when they are much needed. Feeding a little each day at this time will accomplish the same end, but that is a good deal of trouble, while the other method works in with the everyday tasks. In urgent cases I sometimes take away a queen for a few days and re-introduce her. Feed all the while before and after and provide plenty of nice drone comb taken from queenless bees. By closing down the ventilation and strengthening with hatching brood most any bees will request their queen to put in some drone eggs before they will stand the jam many days. By grafting patches of drone comb along the bottom of square combs one is apt to secure at least a comb or two containing eggs. By any of the above methods young queens will give drone eggs every time if introduced to a colony that has been queenless three or four days.

An important point is to preserve your drones after you have secured them and in the meantime bend every effort to produce more.

Swarthmore, Pa.

BLACK BROOD.

Some Interesting Peculiarities of the Disease Revealed by Experience.

BY J. H. JOHNSON.

IN the fall of 1897 I bought two barrels of buckwheat honey from two bee-keepers in New York State (I can give their names if desired). To this honey the bees got access. Next spring (1898) as I was making my round of the apiary, clipping queens' wings, I came upon a colony greatly reduced in bees and brood; there was brood of a few hands' size, mostly unsealed, in the center of three frames, but such as I had never seen. The larvæ were of a yellowish or light coffee color, with black-like spots on each and apparently dead. I had read of foul-brood. Looked for described symptoms. They seemed not to tally. No abnormal smell nor yet that ropiness said to be peculiar to foul-brood. So I adjudged it to be not that disease. Thinking it to be chilled brood or some other harmelss malady, I proceeded to run the risk of spreading the disease broadcast over the apiary by exchanging the frames of the diseased stock with healthy ones; my object being to build up the stricken colony. It would not build up. For a few weeks the accession of young hatched bees was visible, then all combs were again diseased with the malady. Think I gave more capped brood, but to no purpose. They grew weaker, scarcely any young bees were hatched. In September I brimstoned them and buried everything except the hive, cover and division boards more than plow deep. In June of same year I discovered No. 2 of black brood. In early spring they seemed strong and I put on surplus boxes. On passing the hive one day in June I perceived their weakened condition. Thinking a swarm had issued, I opened the hive to examine; but worse than if a swarm had decamped: I found that peculiar disease. As they were badly diseased and weak, I decided to brimstone them; but as I was very busy then, I closed the hive for a time. The hive was neglected until one day in July, when I saw robber bees carrying the supposed diseased honey from the hive. I was horror-stricken. Picking up the hive, I carried it to a near-by stream, killed and shook what bees I could into the water and then carried it into the shop. I supposed this to be a reckless act, yet I did it. I now began to fear and dread the disease. Was it contagious? To what extent? I resolved to experiment and to become more alert and careful.

I took two diseased frames from the shop, inserted them in a strong four-frame nucleus in the beginning of August. In two weeks they were badly diseased; but as they were strong and had stopped brood-rearing, they filled their six frames solid with buckwheat honey. I brimstoned them—a needless act, I think—rendered the honey and burned the wax.

The apiary was now put up for winter. During the winter I thought much upon the disease. To what extent could it, or would it run? Had I better quit bee-keeping and commence anew in another locality? These were questions that passed through my mind.

Spring of 1899 opened; I looked for disease. Found none in March, April or May. Felt more hopeful; but in June eight cases turned up, with seemingly a few more slightly attacked. Five of these had cast swarms, and when, after five or seven days I came to return them, I found the dreaded malady. I returned only two of the five swarms, resolving to give the remaining three the heroic treatment of brimstone. The parent stocks with returned swarms gathered surplus honey about like other colonies and have had seemingly healthy brood since. Of the three colonies which I intended to brimstone, two reared queens of their own, one of which received an accession of bees from a stray swarm, built up solid for winter, while the other. being light in stores, was fed sugar syrup. Both have had healthy brood since. The remaining one of the five that had cast swarms. failed to rear a queen, but became heavy with honey, and I brimstoned them.

One thing more at this time troubled me. Those five swarms from black-broody parent stocks, had they carried the disease to other bees as they mingled in the air with many other swarms and eventually clustered with them and were divided and hived with them? According to observation afterwards they had not.

In early June I had found a sixth colony afflicted with black brood. They were rather reduced in numbers; brood not very badly affected. I tried to build them up. Gave frames of capped brood two or three times. The disease remained, but the bees gained in numbers. They seemed to make a heroic fight against the disease; at times making a loud, buzzing noise and fanning violently with their wings: but as they did not prevail against the malady, I brimstoned them.

There were yet during the same season, a few days later, two more serious cases—a combination of drone-laying queens with black-brood combined. I brimstoned both.

In all cases I used the hives again with good results, after charring them with burning straw.

In 1900 I do not know that I found any real case of black-brood, though I saw a few suspicious-looking cases; but I suppose it was not black-brood, as they did equally well with the rest, except one two-frame nucleus. This had what I feared to be black-brood. I closed it then, being busy. A few weeks later found it queenless, broodless and very few bees. I brimstoned it.

SUMMARY OF RESULTS.

Not a single colony that retained its queen and unsealed brood recovered.

Every colony made queenless and was deprived of its unsealed brood, though retaining their old brood-nest of comb and honey, recovered.

DEDUCTIONS

1st. That the malady is not retained by the mature bees, but with the unsealed brood and with a mixture of honey and black-broody matter gotten by straining or extracting combs containing unsealed brood.

2nd. That colonies with no unsealed brood can use up black-broody honey and cleanse their combs of decayed black-brood, after which they can raise brood and build up.

3rd. That honey stored by black-broody colonies seldom, if ever, by itself alone, carries the disease.

Middaghs, Pa., Jan. 1. 1901.

[Mr. Johnson keeps, ordinarily, about one hundred colonies.—Ed.]

Our Amateur Table.

A NUT WITH A DOLLAR IN IT.

A peculiar instance of a swarm absconding from colony having a clipped queen, is related in one of our exchanges. In order that all may have a chance as nearly equal as possible, we shall have to omit the credit for the present.

All the queens in a certain apiary had been clipped. One day during the season a swarm issued from one of these colonies having a clipped queen. The apiarist had been anticipating the event and had, as a result, been carefully watching this colony. He had not, however, been anticipating that it would immediately leave for the woods and there remain, which it did. An examination of the colony elicited the fact that the clipped queen was still in the hive, though most of the bees had departed. The weather for a few days previous to the swarming had been unfavorable for swarming and none had issued.

The gentleman who relates the story offers a very plausible explanation of the cause and accounts for the conditions which would result as did this. Here is an opportunity to do some wholesome thinking during the winter evenings.

Only amateur bee-keepers are eligible to compete, and of those only such as are not in arrears.

The first correct reply mailed to the editor of The American Bee-keeper will take the dollar.

The question is: What were the conditions which made this occurrence possible and most likely were the cause?

SECURING AN ITALIAN–CARNIOLAN CROSS.

Leeper, Pa., Dec. 26, 1900.

I have four colonies of Hybrids which I want to transform into Carniolans, aiming to have the young queens mated with Italian drones. How shall I proceed to get the best results? Shall I, after the Carniolans have swarmed, divide the combs into four groups of two each with other empty or full combs and place them on the stands of the hybrids after moving and uniting the original hybrids, also giving some of their brood to the prospective Carniolan colonies, or shall I leave the Carniolan brood-nest intact, only removing as many queen-cells as may be required, replacing the hybrid queens with them?

H. Heffner.

[The success of your project will depend largely upon your ability to suppress drones of undesirable sorts and provide an ample supply of pure Italians within flight of your queens. Presupposing the existence of this condition in your vicinity, perhaps you will best succeed as follows:

When the Carniolan colony, from which it is desired to breed, begins to construct queen-cells preparatory to swarming, form a half-dozen nuclei from the bees and maturing brood of other colonies. After all the brood in these nuclei is sealed, remove every queen-cell and allow them to remain in this condition for twenty-four hours, when the Carniolan cells may be given. The two extra nuclei are started as a provision against a possible loss of one or two of the queens. When the young queens are laying, the nuclei may be doubled up with the undesirable hybrid colonies, after having deprived them of their queens and otherwise conditioning them for the reception of a new mother.

Here is another way: and one which might prove more satisfactory, inasmuch as it wiill give you the advantage of a longer use of the superior queens which you desire:

By early stimulative feeding induce the best Italian colony to rear a quantity of drones, before they are flying from other hives. This will be reaeily accomplished by placing one or two good brood-combs in the center of the brood-nest. When drone-brood is well under way, remove the queen with enough bees to form a nucleus; allow them to remain queenless until all brood is sealed, and remove every queen-cell. Now graft ten or a dozen larvæ from your Carniolan queen into artificial cell-cups and give them to the queenless bees. On the eleventh day thereafter the colony may be divided into as many nuclei as is desired, and each provided with one of the best-looking cells. In forming nuclei it is important that they be removed to a distant location for a time, or else that they be confined, with plenty of ventilation, for a day or two before permitting the bees to fly.

The plans you suggest will work all right, so far as the rearing of queens is concerned, providing you do not think it an advantage to keep the hybrids at work until you have the young Carniolans reared and beginning to lay.—Ed.]

AN IDEA RELATING TO COMB-HONEY PRODUCTION.

Stroudsburg, Pa., Jan. 2, 1901.

I use dummy boxes to take the place of four-frames in the brood-nest, to get my bees to working in the sections. This method works well with strong colonies; but I hived two swarms on four-frames and they each filled a number of sections; and I think they would have done better had I allowed them more room in the brood-nest at the start.

Swarms have to be hived back for the best results in comb-honey production, and this would be handy to do if the hive were divided into two parts with perforated zinc and zinc also used at the entrance to the brood-frames. Three wide frames with sections could be used on one side of the hive, which could be taken out and placed in a full-depth story on top of the frames, and the swarm hived in that half of the hive, moving the zinc entrance-guard over to that side. This zinc should be removed when a swarm issues. The brood nest can be increased to eight frames by having a movable stick along the bottom of the partition.

W. D. Walton.

[We believe it will be necessary for Mr. Walton to go more fully into details of his plan, in order that a clear understanding may be had of the arrangement. Just what the "dummy boxes" are, will not be generally understood. Do you really think that hiving back is necessary to the best results in producing comb-honey, Mr. Walton? Why not gratify that natural inclination to swarm, and then throw the working force into the sections by the Heddon plan?—Editor.]

Spring Creek, Pa., Jan 14, 1901.

Editor American Bee-keeper:—As I see Brother Parker has broken the ice for a bee-hunting discussion I will take a hand in the game. I also have spent many pleasant days looking for the little fellows in the woods. Our method of hunting them probably differs, as it does in other business. I have a small box with two compartments; one end has a glass in the lid in which I carry a piece of comb, and, in the other a bottle of honey and a small vial of wheat flour. I made the box thirty years ago, when only fifteen years old. When I want a day of recreation in the fall of the year I take my box and dinner and start for a likely place. If there are weeds for the bees to work on I have no trouble in getting them started. I always try to find a little, black fellow, for when I do have to take up with those that have two or three yellow bands, I seldom get honey enough to pass around to the boys that help cut the tree; and then they say bee hunting is a fraud. My method of hunting is: When I get them to work I take a spear of grass and wet one end in my mouth and dip it into the flour and mark a bee. When she leaves the box I look at my watch; when she comes back I can tell very near where she puts up over night. I then close the box with a few bees in it and move in the direction in which they go. If I don't get near enough the first time so that they can make a trip in three minutes, I move again, and when they do return in three minutes I find them within five to seven rods of the box. A friend of mine and myself were out hunting one day, two years ago, and found four trees in about six hours. I have taken as high as two hundred pounds of as nice honey as I ever saw from one tree.

Yours for thirty days,
A. E. JOHNSON.

Parkertown, O., Dec. 19, 1900.

Editor BEE-KEEPER: The queen-rearing number of THE AMERICAN BEE-KEEPER at hand. I desire to congratulate you on the same. I shall certainly try some of the methods given.

I also note what you say in regard to losing queens when unsealed brood is absent. You ask as to whether feeding will not take the place of this unsealed brood. Will say that in my experience it will to a certain extent. We now have permanent feeders attached to all our nuclei and at a time when no honey is coming in we always practice feeding; but we notice that things always go along more smoothly when unsealed larvæ is present.

Yours truly,
H. G. QUIRIN.

THE NOVEMBER QUESTIONS.

Of the several replies to the questions propounded in the November number we regret to note that none of them appear to have correctly solved them all, as was necessary to claim the dollar. We have therefore given a new problem this month; and append our own solution to those preceding:

First. The reply by Mr. Saunders, in the January number, is in our opinion, correct.

Second. It seems the most natural thing in the world under such conditions, for this little queenless colony to endeavor to perpetuate their existance by exercising their egg-laying power. The fact that but one egg was found in the cell, was doubtless due to lack of more mature age, which is necessary to the full development of the laying action in workers.

Third. Messrs. Johnson and Saunders (January number) have both, undoubtedly, the correct idea.

Fourth. More room, or more bees to care for the brood—perhaps both. Mr. Johnson, undoubtedly had this idea in mind when he suggested "a dose of No. 10 brood frames." A "No 10 brood frame," however, is a Twentieth Century development in apiarian nomenclature, which Mr. Johnson will have to explain.—Ed.

Typewriters and Cameras.

If any reader of THE BEE-KEEPER is contemplating the purchase of a photographic outfit or a writing machine, I should be pleased to have him correspond with me before placing an order for either. I am in a position to offer new instruments of the highest grade, direct from the manufacturers, at the lowest possible prices.

Respectfully,
H. E. HILL.

Fort Pierce, Fla.

We want each of our subscribers to address a number of postal cards for us during this month. Will you have an evening to spare? If you will, write us for particulars. We'll furnish the cards and make a proposition that will be interesting to you, if you will request it.

SOME QUEENS I KNEW.

BY J. O. GRIMSLEY.

NOT that I expect to give any button-removing experience that would remind you of "The Blunders of a Bashful Man," nor that I will tell of any grand receptions by European royalty, do I venture to relate a little experience with royal blood; but that there are queens—good, bad and indifferent—with which I have been acquainted; I wish to speak.

A considerable portion of my time for the past seven years has been spent in experimental work. At first, novice-style, it was more a curiosity, but as time passed it changed into something practical, and became, in reality, experimental. But now for an introduction to some of my royal acquaintances.

Two queens that I never will forget—I wish I could forget them for they haunt me—were Italians of my own raising, and, besides being perfect beauties, were very prolific, and their workers were the best I had. But of all the bees I ever had they were the hardest to handle, although they were uniform, three-band, pure Italians, according to the A. I. Root test. At that time I was hardly more than a novice, and thought I must have gentle bees, or none at all; so after worrying with them for some time, I brought the keen edge of my pen-knife into play, severing their bodies in twain. Oh! that Cogshall could have had those queens; they would not have been treated thus!

Another queen I often think of was one of short acquaintance. She was of Carniolan origin, but was so peculiar (her bees were) I became very much interested. Late one afternoon I spent some time looking at the workers as they quietly crawled over the combs, causing air castles to form, only to be wrecked later on. These bees were an intense black, and the hair covering their body was almost snow white. Draw on your imagination as to the appearance of such bees. Well, early next morning—about seven o'clock—this royal lady and her colony pulled out for the mountains, where I suppose she lived in peace—if she didn't starve to death.

There were other queens, however, that will be considered with greater interest by BEE-KEEPER readers. Procuring cells by removing the queen and letting bees select the larvæ is a popular method with a few who rear queens, but to the close observer it soon comes into disfavor. I reared a great many in that way for myself and neighbors, and I can say without hesitation that they were as fine looking as any queens, it matters not how they were raised. But there is trouble ahead. I care not how beautiful or how large, with me queens reared in that way are a failure. No, not altogether, for about twenty-five per cent. of them will be all right, and keep their colony up in good working order, while the other seventy-five per cent. are not prolific enough to be worth anything, only to look at. I suppose, and the idea with me has been for a long time that a neglected or old larva has the reproductive organs poorly developed. Well, of course, the larva that is treated for a queen from the day (or hour) it hatches has much better development than one neglected for two or three days. And my experience with "Queens I Knew" is that bees do not always select larvae of the proper age. But the time came when I would have grafted cells or none, selecting the youngest larva that could be handled. By this method it was quite different—fully ninety per cent of such queens were as prolific as we could desire. With queens that I knew, the size was not anything like an index to character; I often found large, fine looking queens almost barren, even under favorable circumstances. At one time I was almost convinced that it was best to use royal jelly from about a three-day larva, but further experience showed that the age and amount of jelly amounted to little, as the nurse bees take that business in hand and feed according to their own notions.

You probably want to know what queen I knew produced the prettiest bees, and that is an easy question. An Albino mated to a Golden drone, making a five-band Albino worker. Oh, what beauties! They were very gentle, and were good workers.

The best workers? Well, that is harder to answer, as I have known quite a number that were extraordinary. But try all I may, I can't pass a colony headed by a Holyland queen mated in an apiary of three-band Italians. These, too, were pretty, but a veil came in handy when I was any where near.

Beeville, Tenn.

PAN-AMERICAN EXPOSITION.

The Wonderful Work Which Will Attract Millions of People to Buffalo Next Year.

THE Bureau of Publicity of the Pan-American Exposition has just issued a very complete booklet descriptive of the enterprise to be held at Buffalo next year. The booklet contains forty-eight pages with one hundred and twenty-one titles and eighty-two illustrations. The publicity up to the present time has been piecemeal, bringing out the various features as they have developed, but an examination of this booklet gives to the reader a very comprehensive idea of the splendid character of the Exposition.

The total cost of the Exposition, exclusive of exhibits, is now estimated at $10,000,000. Of this amount about $3,000,000 will be expended upon the Midway. The sum for the Midway is more than the total cost of some very pretentious expositions, so that by comparison one may gain a very fair idea of the work which Buffalo is carrying rapidly to completion. A beautiful landscape comprising three hundred and fifty acres, half a mile wide and a mile and a quarter long, is devoted to this wonderful enterprise.

The word "Pan" as a prefix to America means All—that is to say, the exposition is for all the Americas, exhibits from European countries not being accepted. It is claimed for the Pan-American Exposition that it will be the most artistic creation of the kind ever brought into existance. It will excel all former expositions in its court settings, having thirty-three acres of courts alone, upon which to bestow the wonderful embellishments of fountains and cascades, pools and lakes, canals and lagoons, lawns and gardens. The twenty or more great structures which are to shelter the exhibits gathered from all corners of the Western Hemisphere and from all the island possessions of the United States will surround these courts. Every building is richly adorned with plastic ornamentation and tinted in accordance with a magnificent color scheme under the direction of Charles Y. Turner, the leading artist of the world in this work.

No exposition has ever undertaken such an extensive use of sculpture for decorative purposes. This work is under the master direction of Karl Bitter, who has added to the vast knowledge and infinite skill which gave him the leading position at the World's Fair at Chicago, the experience of seven more years of activity in his profession. Under his direction thirty or more sculptors, embracing all the leading artists of this class in the United States, are at work upon more than one hundred and twenty-five groups of original sculpture.

In the use of electric lights for decorative purposes this exposition will outshine all former undertakings. Owing to the nearness of Niagara Falls, with unlimited electric power, the Pan-American Exposition has at hand a large volume of energy which will be employed to whatever extent may be necessary to produce the most brilliant, fantastic and beautiful electric lighting effects the world has ever seen. The exhibits of the exposition are divided into about twenty classes and embrace

Group of Employees of The W. T. Falconer Manufacturing Company.

every line of human activity.

The gates of the exposition will open on May 1, 1901, continuing six months. Buffalo, a city of nearly 400,000 population, one of the most charming cities of the world, and having a climate ten degrees cooler than any other city of the northern states in summer, is preparing to welcome millions of strangers to its gates next year.

INSECTS AS WEATHER PROPHETS.

A great deal of our most popular weather lore is wholly superstitious, ascribing prophetic virtues to the weather of particular days of the week, Saints' days, and even to the movable feast days, says the *London News*. Although it is interesting enough in its way, that kind of weather lore can hardly be taken as a reliable guide. It is from the habits and instincts of animals, properly observed, that we can learn more weather wisdom of the scientific sort than from almost any other source, and, of all animals, insects are among the most interesting to study in this connection.

Bees are excellent weather prophets. There is a common country saying that "a bee was never caught in a shower." When rain is impending, bees do not go far afield, but ply their labor in the immediate neighborhood of their hives. This well-authenticated fact is set forth in the rhyme which tells that

When bees to distance wing their flight,
Days are warm and skies are bright;
But when their flight ends near their home,
Stormy weather is sure to come.

Virgil was evidently aware of this bee instinct for coming rain, and describes (in Georgics IV.) the insects as "searching the skies to find out breeding storms." Just before rain the homing bees may be observed entering the hive in large numbers, while none come out again. When that is observed, the observer may confidently follow the good example and seek shelter. And, again, when bees are seen vigorously at work very early in the morning, unsettled weather may be expected later in the day; the weather instincts of the little creatures apparently leading them to make up time in advance.

Wasps and hornets are said to have the weather instinct over a still longer range.

LITERARY NOTES.

Theodosia Burr's remarkable life story is capitally told by an admiring writer in the February Ladies' Home Journal. Such extremes of joy and sorrow as were the lot of "The Beautiful Daughter of Aaron Burr" come to few women The story of the famous hymn, "Nearer, My God to Thee." and a close view of its brilliant author, are united in "A Woman to Whom Fame Came After Death." How we get and keep the correct time is explained in "The Clock by which we Set Our Watches;" and "The Buffaloes of Goodnight Ranch" is a record of the only Herd of North American bison owned by a woman. Lovers of "Cranford"—and they are legion—will be delighted with the dramatic version in the February Journal. Through Edward Bok representative men and women journalists emphatically settle the oft-disputed question, "Is the Newspaper Office the Place for a Girl?" There seems to be but one opinion among those who should know most on the subject. "The Problem of the Boy," "Why One Man Succeeds and His Brother Fails," and "The Trying Time Between Mother and Daughter" are all thoughtful articles. Architecture, the fashions, culinary matters, and all themes interesting women are amply treated. By the Curtis Publishing Company, Philadelphia. One dollar a year; ten cents a copy.

Outing for February ranges in home sports from "American Figure Skating" to "A Blue Fishing Partnership" in Florida; and geographically from "Fuegians on a Guanaco Hunt," to "Unclimbed Peaks in the Canadian Rockies" Abroad it embraces "South African Antelope Hunting" and "Sail and Paddle in the South Seas." Its leading article, "Wild Motherhood," by Charles G. D. Roberts, well deserves its place as a master study of primal instincts, and for its illustrations by Arthur Heming Some of the other interesting articles are: "Theory of Teaching Golf," "An Angling Democracy," "Fox Hunting in Virginia," "Coon Hunting in Michigan," "Automobile Development," "American Game Preserves," "Good and Bad Bits," "The Winter Woods," "The Story of the Sporting Gun," "Upland Shooting in Oregon," "Wild Black Ducks for Decoys," and a study of "John Burroughs," the naturalist. The Outing Publishing Company, 239 Fifth Avenue, New York City.

Modern Culture Magazine has suffered a grievous loss in the death of its business manager, Mr. Alvah D. Hudson, but the February magazine following his death suffers neither in timeliness nor in fullness of interest. "A Roman St. Valentine's Day," by William Warner Bishop, and "Love's Little Diary," a beautiful poem by Edgar Fawcett head the list of contents. Sculpture at the Pan-American Exposition by N. Hudson Moore is beautifully illustrated. "Glimpses of Life in the Philippines" and the second of Marion Harland's Virginian Tales are delightful and interesting. "The House Behind the Cedars" reaches a tragic ending in this number and a new serial, "Beyond the Pale," by Leo Warren, begins. "The American Architect's Annual is a very attractive article and "The Circus in Winter Quarters" will please even "boys grown tall." The Lanier lectures on "Shakespeare's Time" end in this number. "Aaron Burr" and "Washington's Ablest Ally" are the historical articles, while the marriage of Queen Wilhelmina lends interest to "A Royal Bride." Modern Culture Magazine Co., Nos. 719, 721 Caxton Building, Cleveland, Ohio.

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H. E. HILL, Fort Pierce, Florida.

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☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

Keep in mind the prize contest.

Propolis is now used as an ingredient in a fine leather polish. It is possible that this product of the apiary will have a commercial value in the future. *Gleanings* states that Mr. Frank Benton sold twenty-five pounds of it.

Note the quantity and quality of original matter in the recent past, present and future numbers of THE BEE-KEEPER; then, if you are in any way dissatisfied with your fifty-cent investment, state your grievance to the editor.

The *Australian Bee Bulletin* is authority for the statement that England receives £5,000 worth of honey every month, from countries not her own possessions, and says: "When Imperial Federation is a practical fact, Australian honey should be taken instead of Californian."

In Australia some one has invented a press for extracting the honey from cappings. Instead of waiting several days for the honey to drain out, pressure is brought to bear upon them at once. Why could not the Ferris wax extractor be utilized to advantage for this purpose. Then, if only a small amount of cappings are on hand, they are in place, ready for the steam.

The fourth annual report of the general manager of the National Bee-keepers' Association, issued in December, 1900, gives a very interesting account of the year's business. The treasurer's financial statement shows a balance with which to begin the new year, of $521.15. If space will permit, we shall later give some extracts from this official source, in regard to the excellent work of the association.

The office of the *The American Bee Journal*, 118 Michigan street, Chicago; was greatly damaged by fire on January 1st. The *Journal*, however, still continues to come to hand with its usual remarkable regularity. We regret to learn of brother York's misfortune; and trust that his losses may not prove heavy, when an adjustment of the remnant has been made.

Mr. H. H. Robinson, Port Orange, Fla., one of the largest producers of honey on the Halifax River, during a recent cruise down the coast, stopped off to have a bee chat and hand the editor half a dollar. Mr. Robinson reports his bees in excellent condition, and a favorable prospect ahead for the opening season. In the matter of periodical bee-literature, Mr. Robinson finds THE BEE-KEEPER quite adequate to his needs.

The Worcester (Mass.) County Bee-keepers' Association held their annual meeting January 19.

Secretary C. R. Russell in his report said: "The association was organized April 14, 1900 with a membership of twenty-two. Eleven new members have been added to the rolls. Two meetings were held during the summer at the apiaries of two of the members. At both these out-door meetings the attendance was large and enthusiasm was manifested. The coming season we hope to have more out-door meetings as our experience has proven there is profit to be had from this." Seven joined at the meeting, making a total membership of forty.

The *American Bee Journal*, in its issue for January 17th, appears to have reached a stage in the discussion of the "yellow wax" matter, where it sees less "amusement" and more logic in our position. Editor York now asserts that his "journal has never pretended to claim for slow cooling anything more than that it allowed the foreign particles time to settle." Why, then, has the journal so emphatically opposed our assertion that slow cooling has nothing to do with rendering dark wax a bright yellow? The settling of foreign particles will not change the color of wax; and if it would, slow cooling does not give the foreign particles a chance to settle. The constant application of moderate heat is very necessary in settling this foreign matter. If truth and facts are the objects of discussion why not renounce and confess a revealed error as freely and openly as we were wont to defend it.

Mr. E. C. Summerlin, St. Lucie, Fla., recently renewed his subscription for 1901, at the same time offering some very encouraging remarks in regard to the paper. Mr. Summerlin is an experienced bee-keeper, who believes that the south does not receive its share of representation in apicultural journals; but says THE BEE-KEEPER is more evenly balanced than any of the others in this respect, and that he therefore prefers it to any other bee-paper published. Mr. Summerlin claims to have learned a lot about bee-keeping through his former mistakes, besides many things otherwise acquired. For example, he has learned that the wax-moth, ants and bears, are subjects of vastly more moment to the Florida bee-keeper than "the preparation of bees for winter." In his locality, he says, moths have entirely ruined eight or ten sets of combs, as a result of a few days neglect. He has experiemented to some extent in the matter of trapping the moth, by setting a lamp in a wide pan of water and kerosene during a still summer night; and has in this way caught fully a pint of the offending moths in a single night. He has learned also that hives for the south should be entirely free from any cracks, crevices, holes or corners that will afford a harbor for vermin.

Honey and Beeswax Market.

Below we give the latest and most anthentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

NEW YORK, January 17.—The demand for all grades of comb honey is brisk, while extracted is dull. We quote fancy white comb at 15@16c.; No. 1 at 14c.; No. 2 at 13c.; mixed at 11c.; buckwheat at 10@11c.; buckwheat extracted at 5@5½c.; beeswax, 28c. FRANCIS H. LEGGETT & CO.

BUFFALO, January 16.—Demand for honey is very light with very good supply. Price of comb, 13@15c.; extracted, 5@8c. The demand for beeswax is dull with a fair supply at 22@28c. There is almost an entire falling off of the demand for honey and we are uncertain whether it will improve. BATTERSON & CO.

CHICAGO, January 16.—We have practically no demand for honey at present while the supply is fair. The price of comb remains unchanged, but extracted is quoted at one-half cent lower than last month. The demand for beeswax is strong at 28c.; but supply is short, as usual.
R. A. BURNETT & CO.

KANSAS CITY, January 18.—Demand for honey is fair with a poor supply. No fancy white comb coming in. Price of fancy white comb, 15 @ 16c.; amber, 12 @ 13c.; extracted, 7½ @9½c The demand for beeswax is light with liberal supply and brings 25@28c. We do not look for any better price on honey. The trade will not take half of it at advanced prices.
W. R. CROMWELL PRODUCE CO.

BOSTON, January 18.—We quote Fancy No. 1 white honey in cartons at 17c.; A No. 1, 16c.; No. 1, 15 @ 16c., with fairly good demand. Absolutely no call for dark honey this year. Extracted, white, 8 @ 8½c.; light amber, 7½@8c. Beeswax 27c.
BLAKE, SCOTT & LEE.

* * *

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CHICAGO, Ill., Jan. 23, 1901.

Hon. Eugene Secor, General Manager National Bee-keepers' Association, Forest City, Iowa.

Dear Sir: The undersigned committee, selected to count the votes cast by the members of the National Bee-keepers' Association in December, having performed their duties, find the following result:

Total number of votes cast, 295. For General Manager—Eugene Secor, 259; George W. York, 16; Dr. C. C. Miller, 3; Wm. A. Selser, 2; balance, scattering, one each. For three Directors—W. Z. Hutchinson, 237; A. I. Root, 233; E. Whitcomb, 213; George W. York, 25; G. M. Doolittle, 17; Dr. C. C. Miller, 12; Herman F. Moore, 13; E. T. Abbott, 11; C. P. Dadant, 10; N. E. France, 8; O. O. Poppleton, 6; Frank Benton, 5; C. A. Hatch, 4; W. L. Coggshall, 2; Thos. G. Newman, 2; H. G. Acklin, 2; P. H. Elwood, 2; A. J. Cook, 2; Eugene Secor, 2; balance scattering, one each.

Respectfully submitted,

GEORGE W. YORK.
HERMAN F. MOORE.

Group of Employees of The W. T. Falconer Manufacturing Co.

As promised last month, we present elsewhere a photograph of some of our employes. Many of the men who appear in the picture have been with us continually for from eight to fifteen years; several have never worked in another factory but ours. Most of the men in the picture are well skilled; and to their ability is due the fact that we turn out first-class goods which have gained an enviable reputation for excellency throughout those countries where modern bee-keeping is practiced. We have about 125 employees at the present time.

* * *

Mr. Herschiser, at the Geneva convention, speaking of the tall, thin section says "The thinner the box, the more transparent and beautiful the honey."

A correspondent suggests the use of an ordinary medicine dropper, or pipette, or what some call a fountain pen filler, for the purpose of handling royal jelly.

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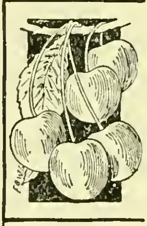

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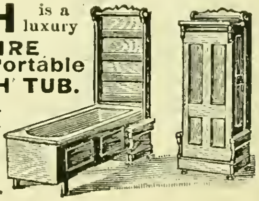

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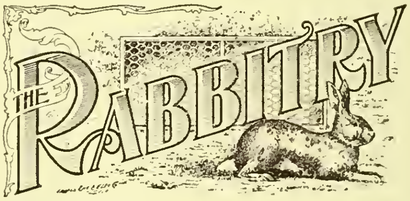

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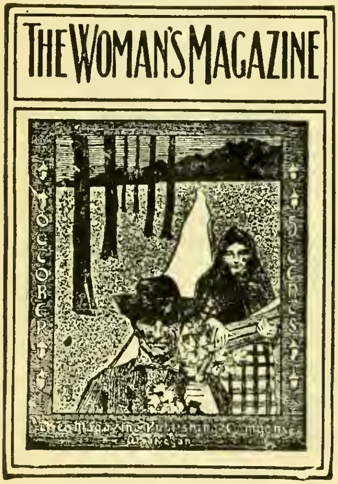

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MARCH

1901

Vol. XI No. 3

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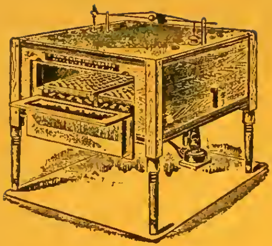

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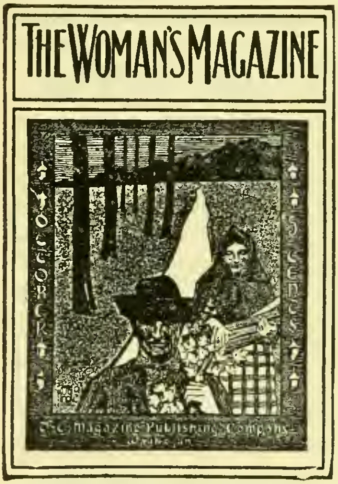

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI MARCH, 1901 No. 3

NEW YORK STATE ASSOCIATION OF BEE-KEEPERS' SOCIETIES.

A Condensed Report of Its Third Annual Meeting, at Geneva.

BY SECRETARY HOWARD.

THE third annual meeting of the New York State Association of Bee-keepers' Societies was called to order by President W. F. Marks, at 11 a. m. The report of the Secretary and Treasurer was read and adopted.

The President's annual message. It is expected that this will be published in a later issue of THE AMERICAN BEE-KEEPER. However, it might be said here that Editor Root, in commenting upon it, said that he considered it a very valuable paper and hoped that the Association would act upon it.

C. J. Baldridge: "I believe adulteration is a great injury to our extracted honey market, not by the amount that is consumed, but if a customer once gets a taste of it he will want no more extracted honey. One bottle, I think, would last a family a year."

Mr. Baldridge was appointed as a committee to procure a sample of adulterated honey and bring it to the convention room for inspection; also a bottle was sent to the Geneva Experiment Station to be analyzed.

Mr. Stewart: Adulteration is carried on very largely in the cities of New York and Albany.

President Marks read the law of this State on adulteration of honey and it was recommended to make an attempt to get the law in the hands of the Commissioner of Agriculture.

E. R. Root: Honey adulterated with sugar syrup is not easily detected; but when adulterated with a cheap grade of glucose, which is commonly used, and which can be bought for about one cent a pound, it is very easily detected. It has a metallic taste, and, by getting used to the taste of glucose, it can be told even if only a small per cent. is present. Another way to test is by putting in wood alcohol and stir it thoroughly, which will give it a cloudy appearance.

Mr. Stewart: Black-brood was introduced into this State in the northern part of Schoharie County and was probably brought from the South. It is a disease that seems to lose its power or virulence in the hands of thorough bee-keepers. It has an acid or gluey smell; more of the brood dies before it is capped than in foul-brood. Fulton and Montgomery Counties are the counties most affected. I never saw foul-brood and black-brood both present in the same apiary. It has been my experience that the McAvoy treatment will cure black-brood and I do not think it necessary to close the hive; but believe the principal cause of spreading is from the honey being carried from one colony to another by the bees going into the wrong hive. The Italian bees will withstand the disease the best and combat its ravages better than any other race.

Prof. S. A. Beach, of Geneva Experiment Station, who had been conducting quite extensive experiments on spraying fruit trees while in bloom, under the law which had been amended for that purpose, said in part: "I take the position that it is not best to spray plants while in bloom. The fruit-growers in the western part of the State had a sort of a craze for spraying trees while in bloom and made very determined efforts to get the law repealed, and succeeded in getting it so amended that experiment stations could spray for experimental purposes. The influence the insects have on the setting of fruit is very beneficial; in fact, some varieties cannot set fruit without the aid of insects. It is also beneficial to the flowers to have pollen brought from other flowers. As an example of the evil effects of spraying fruit trees while in bloom, the following will serve: In a sugar solution nearly all of the pollen grains grew. In five per cent. sugar solution and five per cent. Bordeaux mixture none of the pollen grains grew. In two per cent. sugar solution and two per cent. Bordeaux mixture very few of the pollen grains grew. The experiment resulted the same with Paris green as with Bordeaux mixture.

R. M. Kellogg, of Michigan, tried spraying strawberries while in bloom, to his sorrow. On an orchard where part of the trees were sprayed and part were not, the sprayed showed a loss of one-half to one and one-half bushels to the tree.

At the Station we experimented by spraying repeatedly one side of a tree and not spraying the other side at all, while in blossom. The sprayed side had no fruit on it while the unsprayed side was full, which shows very conclusively that the spraying killed the blossoms.

I was told by one man who sprayed while in bloom last year, that he estimated his loss to be from $700 to $1,000 from the effects of the spraying."

F. Greiner: "Render unto Cæsar the things that are Cæsar's." Mr. Greiner believed that credit should be given where credit is due; and that he did not believe Moses Quinby received the credit justly due him.

O. L. Herschiser, Superintendent of the Apiarian Exhibit at the Pan-American, informed the Convention that the apiarian exhibit was expected to be the finest ever seen, especially at the later part of the season.

Prof. Victor H. Lowe, of Geneva Experiment Station, gave us the result of his experiments on fruit-pollenation, which showed very conclusively that insects were absolutely necessary for the fertilization of the blossoms.

Illustrated lecture by E. R. Root. This, we believe, was about the same as given at the other conventions, and a vote of thanks was tendered to Mr. Root for the entertainment he had afforded the Convention.

Officers were elected as follows: President, W. F. Marks; Vice-President, N. L. Stevens; Secretary and Treasurer, C. B. Howard.

The Committee on Resolutions reported as follows:

RESOLUTIONS DRAFTED BY THE COMMITTEE.

1. Your committee is aware that our laws of adulteration of honey is not enforced by the State Board of Health, whose duty it is to do so;

Therefore, be it RESOLVED: That the enforcement of the law relating to adulterated honey be placed under the control of the Department of Agriculture if the Department will consent, and that we instruct our officers to use their utmost efforts to accomplish this end.

2. RESOLVED: That we tender our thanks to the Bureau of Farmers' Institutes for aid rendered in conducting a series of Bee-keepers' Institutes throughout the State.

Also to Professor Beach, Mr. E. R. Root, the State Inspectors, and all other visitors who contributed to make our meeting interesting.

We appreciate the courtesy shown us as a Society by the proprietor of the Kirkwood; and we extend our thanks for privileges enjoyed.

FRIEDMANN GREINER.
N. L. STEVENS.
E. H. PERRY.
C. J. BALDRIDGE.

O. L. Herschiser was elected as a delegate to represent the Association at the next Pure Food Congress at Washington, when called.

Geneva, N. Y., Jan. 9, 1901.

THE U. D. QUEEN-REARING AND NURSERY CAGE.

A Novel and Promising Arrangement Devised by the Gentleman Whose Portrait Graces a Page of This Number.

BY "SWARTHMORE."

IT is almost impossible to give an accurate description of this cage without an illustration, not because it is so intricate, but for the reason that it is of peculiar construction. It is really a combination of the best features of all the cages and is adaptable to all methods of queen-rearing. Its use simplifies the performance in cell-getting and lessens the manipulations after the cells are started.

The cage itself is of one-half inch stuff, cut into strips so as to join a frame two inches wide and of a length just right to fit between the end-bars of an ordinary frame. When three are placed one above the other, they exactly fill a Simplicity frame. The top and the bottom board have a series of half-inch holes bored five-eighths inch apart along the entire length of each strip—twenty-five holes to a strip—and between each hole is a saw-cut to admit separating tins, which tins are easily slid in and out at will.

The end-bars of the cage are nailed fast to the bottom strip. A sheet of wire cloth is tacked permanently onto one side and a piece of perforated metal is adjusted to the other in such manner that it may be removed at will and replaced as occasions demand. The top-bar fits loosely and is held in place by small staples which pass through the perforations of the zinc at intervals.

When ready to start cells, the top-bar is removed from the cage proper which gives perfect freedom for any form of operation. I prefer the plug-cup plan, as explained hereafter. To secure these plug-cups lay the top-bars down onto a smooth surface and run melted wax into the holes. When the wax cools shave the plugs flush with the wood with a forming stick, then make into the center of each wax-plug an impression one-half inch deep; then put the bars away ready to be drawn upon at any time when cells are wanted. If you practice the Doolittle plan of cell-getting simply place the top-bar in the sun for a bit to warm and with a forming-stick burnish or polish the cups by first passing the stick to the mouth and then rapidly twirling it in the bottom of each cup, and, after shaving off the bits of wax, proceed to transfer the larvæ etc. With the Alley method cut pegs of one egg each and set them one in each hole with a drop of molten wax. If you practice the Pridgen method place a "cradle-and-all" in the bottom of each cup, just as he told you, or you may graft eggs as I have explained in a previous letter.

After the cells are well under way, bring the top bar and the cage proper together, slide a tin between each cell, put the zinc in place; slip all into a regular frame and you have something of regular size which may be handled or placed anywhere like an ordinary frame with no further trouble until the cells begin to hatch, then a strip of wire-cloth should be placed over the zinc inside the slats which bind the metal, or the cage may be placed with queenless bees who will care for and feed the young queens. The lower holes of the cage are to hold sponges which act as corks to each compartment in confining the young queens; also, when saturated with honey to furnish food during their imprisonment.

When you have once secured good cells, one on each plug, across the entire length of the bar, do not destroy them; shave them off carefully, remove the jelly and use again and again. An egg may be grafted into each cell and the cage at once placed in the midst of a powerful colony without further manipulation, when, at the end of a week, a lot of fine, natural or swarm-cells will be found nicely built out. To give the bees plenty of

Continued on page 44.

THE SWARTHMORE APIARIES.

(See page 52.)

THE full-page picture presented in this number of THE BEE-KEEPER will be of interest to those who have followed the instructive and entertaining series of articles now appearing, from the pen of "Swarthmore," whose portrait also constitutes a part of the rather harmonious medley. In response to our request for an explanatory letter, "Swarthmore" wrote:

MY DEAR EDITOR: In the upper left corner is a view from the banks of the Delaware River, which flows through this section and which waters a wide range, furnishing a never-failing honey source throughout this entire section about Philadelphia. The honey is light amber, of good flavor and of excellent body, and mostly gathered in the autumn.

A corner in my home yard is shown in the largest picture and below this a group of several little fertilizing hives. The apiarist is introducing queens *a la* Alley, with tobacco smoke. These small hives hold frames 4¼ x 8½, and are the most convenient and least expensive for queen-rearing on a large scale. You will notice that each hive is stilted above the ground by attaching a stake to the side of hive. These stakes are held in place by screw-eyes and are easily removed at will. When we set out these little nuclei we generally select a plot where the grass will likely be undisturbed, and when grown up it forms the best protection possible to the colony, also furnishing excellent marks for flying queens. The stakes raise the hives high and dry, which is very important in this latitude. The details of the fertilizing hive, also the breeding-queen hive, are shown in the foreground; also one of the "Swarthmore" nursery cages, both explained in articles already written and in your hands. The U. D. feature is extended to these little hives in that four of the small frames just fit inside an L-frame and at the proper time a full colony may be broken into ten to fifteen parts to form queen fertilizing colonies.

The frame standing upright shows very distinctly the scheme for securing brood and honey for the little hives.

In the out-yards we feed these little colonies from inverted salt shakers and electric lamp bulbs, but at home we drop lozenges of good food into each hive every few days. Yours truly,

"SWARTHMORE."

The U. D. Cage.—*Continued.*

room for this work the plugs should be one inch apart, or the tins may be left out at first to be put in place after the cells are capped, as one pleases.

As a nursery this cage fills the bill—seventy-five queens are accommodated in a single frame; laying or virgin, they will be as well cared for by the bees as though each queen were in a separate hive by herself. I have had as high as two hundred queens in a single nucleus; and this winter I shall undertake to winter seventy-five queens to the colony, to get even with my friends in the South, who have heretofore led me sixty days on account of location.

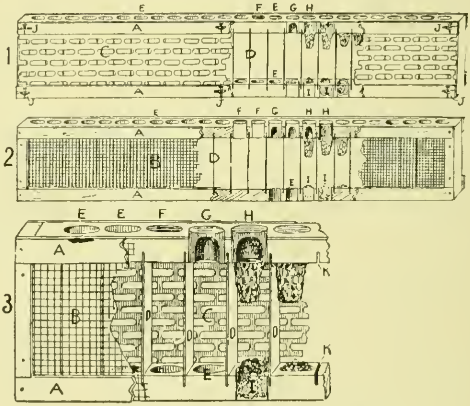
"SWARTHMORE."

Swarthmore, Pa., Oct. 1900.

Through the courtesy of *Gleanings in Bee-culture*, in which journal the U. D. cage was previously described, we are permitted to present an excellent illustration of its construction. Upon receipt of a sample cage, which "Swarthmore" sent for inspection, we had some misgivings as to the advisability of confining virgin queens with perforated zinc; and accordingly wrote "Swarthmore" asking for his experience. We can do no better than to give the reply in his own words:

MY DEAR MR. HILL: Virgin queens, if properly developed, cannot pass the Tinker zinc; they can the Root zinc, however. It is very important to make sure of fully developed queens by giving cells to powerful colonies only: a fairly strong colony will build a few cells of good size—perhaps six or eight; but the queens coming from them are sometimes small and poor. A colony strong enough to start twenty-five good cells should be chosen, and after the bees have worked on said cells thirty-six hours, they should be removed and given to another powerful colony to be finished. In this way no undersized virgins will ever be found in the cages.

"SWARTHMORE."



Showing construction of U. D. Cage.

SETTING BEES FROM CELLAR ETC.

BY G. M. DOOLITTLE.

A CORRESPONDENT wishes me to tell in THE AMERICAN BEE-KEEPER how I set the bees from the cellar and also if I set each colony on the same stand it occupied the fall previous. Answering the last question first, I will say that it is supposed by many that when the bees are set from the cellar each colony must occupy the exact position or stand that they did the summer previous, or else many bees will be lost by going back to their former location. Those who are at all familiar with bees know that the young bee, when it comes out of the hive for the first time, marks its location by turning its head toward the hive upon taking wing, when it commences flying in front of the hive in circles, each circle growing larger as it goes further from the hive until it is lost from sight. In this way the exact spot of "home" is located, after which no more precaution needs be taken by our bee, for it seems to remember ever afterwards where its home is. For this reason it leaves its hive on all subsequent times in a direct line of flight, never looking at the hive at all, so that if the hive is afterwards carried to a new location, the bees do not seem to know it, (unless carried two or more miles away so that all the surroundings are entirely different) but sally forth only to return to the exact spot where they first marked their home, there to die a homeless wanderer. Now while, as a rule, this is perfectly true, no matter whether the hive is moved at night or in the daytime, yet I find that there are two exceptions, one of which is in the case of a swarm and the other is their first flights in the spring. While the bees always seem to know where their old location was, so that the swarm or bees, in the spring can return if they desire to, still a swarm does not so desire, except from loss of queen, nor do the bees in the spring, if set out in the following manner, which is the way I always do it:

I first light my smoker and proceed with it and a spring wheelbarrow to the cellar door, at which place both are left, when I go in and get one of the colonies and place it on the barrow. As soon as this is done I puff a little smoke in at the entrance of the hive, so as to keep the bees from running out and stinging me or getting lost, which they are sure to do if no precaution is taken; and of all the bees to sting, such bees as are suddenly awakened from a long winter's nap, are the worst. Then, all such bees as go out before the hive is placed upon its stand are lost, as they mark their location where they leave the hive, and so never find it again. Also, the smoking causes them to be slower about coming out, so that swarming out and confusion are avoided. As soon as the smoke is puffed into the hive, the cellar door is shut (having an assistant to close it would be still better) so as not to raise the temperature and thus arouse the bees inside. The hive is then wheeled to where it is to stand in the summer, the entrance adjusted and the outside cover put on. In setting out I do not carry all out at one time, but I set out ten to twenty in the morning, scatttering them well over the yard, and then as many more in the afternoon, commencing at from two to three o'clock, according to the warmth of the day, setting last about amongst those set out in the morning. In this way all robbing and mixing of bees is avoided. Of course, it is understood that the bees are only set out on pleasant days, with the mercury at fifty degrees or more above in the shade.

Borodino, N. Y.

SOME QUEENS I KNEW.

BY J. O. GRIMSLEY.

THE loafer at the crossroads store makes his appearance with perfect regularity and, taking his seat on the dry goods box which he occupied the day before, proceeds, after giving his jack-knife a few "whets" across his brogan, to whittle in the same notch. So here I am on the same box—Some Queens I Knew—ready for another bout at carving.

When one turns his back on the future and begins looking backward, as a usual thing he is in a bad row of stumps; but there are times when a glance backward has quite a different effect to what it did on Lot's wife. We bee-keepers especially are greatly benefitted many times by a glance backward.

Often do I think of this when a certain queen I knew comes to my mind, and I can but wonder at what the future may prove. This queen was one I purchased from an Arkansas breeder, and was highly recommended. The man I bought her of said she was a tested breeder and that her colony had stored already 120 pounds of honey in sections that season, and there was another case nearly ready to take. We must admit that 144 pounds of section honey is no bad record. The price agreed upon was $6; and the queen was successfully introduced to a full colony in my apiary. Imagine my surprise when her bees began to show up very irregular in color. "Tested as a breeder," but surely, such a queen could not produce uniform royal offspring. Her bees while being very irregular in color, were all three-banded. Some would show the three bands only when filled with honey, while the bands of others were so wide as to almost blend into one. It was getting late in the season for rearing queens, but a few colonies needed re-queening and I prepared a lot of cells and grafted them from my Arkansas queen. To my great surprise this lot of queens were very uniform, and were all very fine. Not one was mismated and their workers showed up much more uniform than those from the breeder. The next season gave me a chance to give her a thorough test, and I found that she excelled anything I had tried as a breeder. But there was one peculiarity about her royal offspring: I could not get a single breeder from the entire lot. Hardly one of them but what showed up better bees than she did, yet every queen I reared from any of them would show a large per cent. of black bees. Now why did the granddaughters show the black blood while the daughters showed brighter and more uniform workers than she did? This is a problem in heredity that I cannot solve. I will explain that they were all mated in the same apiary and under same conditions.

One day while busy in the apiary a neighbor appeared on the scene and asked me to go and hive a swarm. "They had settled," he said, "on a black gum, out on a limb about twenty feet from the ground." We took a hive along and after a mile's walk reached the place where the bees had settled. They were what he called "blacks," so I put on a veil and "fixed up." I went up after the bees, removed them from the limb and let them down to the old gentleman. To my surprise I did not see a mad bee. I descended from the tree and went to help "get the bees in" and soon learned that a veil was worse than useless. The bees were very large and uncommonly gentle. They were uniform brown, and when filled with honey and the abdomen curved, there was a bright yellow spot visible on the first division. These bees proved to be the equal of any in our neighborhood—extra good comb builders and the queen very prolific. I have seen others since, just like her, and I pronounce them pure German. If I find another of the same kind I am going to establish an apiary of them, as I consider them of exceptional value. Of course, our degenerate blacks are not worth the space they occupy, but bees like those were are worth caring for. One very desirable trait is that they cap their honey so white.

So ends my musings on "Queens I Have Known." I don't feel that I can do justice to a few queens I have heard of or read about or I might promise a few lines. "Sufficient unto the day is the evil thereof," consequently I will "act as the spirit moves me."

Beeville, Tenn.

AN ARTIFICIAL INCREASE EPISODE.

BY G. C. GREINER.

THE honey season of a year ago was one long to be remembered. It was the poorest, most destitute of honey, from beginning to end, that I ever experienced. There was nothing to do for the apiarist but to wait, and this continuous waiting grew so monotonous that I longed for something to do in the line of bee-keeping. I had about a dozen colonies to transfer which I intended to do whenever bees could find honey enough away from home to keep them from robbing.

During the time we generally have our basswood honey-flow, bees did find a little honey, and I imagined the usual flow from that source had begun. This led me to think that my chance for that little transferring job had come and started in with what I considered one of my strongest colonies. I found, to my surprise, not only a strong colony but a hive full of brood also, so that I could fill eight of my frames, mostly all brood. As I felt anxious to increase all I could, I decided to divide these eight frames into two equal parts, (according to the amount of brood) give each a laying queen, place them onto the stands of two other strong colonies and move the latter to new locations. I had just made the changes and was watching the returning bees enter their new homes when I was called away. Instead of coming right back, as I expected, I was detained perhaps a half hour. When returning to my bees I found the whole apiary in a complete uproar. Robbing was going on at the two new hives at a fearful rate. Of course, I closed both hives as soon as possible, and by repeated opening and closing just at the right time, I succeeded in quieting the excitement. But what was the result? Hardly a single bee was left in either of the two hives. The flying bees of the two removed colonies, which I expected should stock up and form my young swarms, had gone with the robbers. I had two hives, each with about four combs of brood and some honey; each one had a laying queen, but no bees—a discouraging prospect.

The question may be asked here: What became of the bees that belonged to these combs before they were transferred? To explain, I will say that I shook and brushed them off their combs and gave them an empty hive with starters. As I said before, I had the extra laying queens and wanted to increase all I could.

At that time bees were generally laying out quite heavy. The hives next to these beeless ones were black in front with bees and these I used to stock up again. By scraping two or three times very carefully up the front, catching all the bees I could, I nearly filled a two-quart dipper, enough bees, I judged, to populate one of my deserted hives. When I dumped them on the alighting board in front of the entrance, they at once travelled toward the offered hive and seemed to take possession as any well-behaving natural swarm ever did: but before the last ones had entered in the first ones began to "enter out" again. Just then I closed the hive. After serving the other in like manner, I left both to their own fate for the time being.

On the evening of the next day I opened their entrances very cautiously, expecting to see them skip on double-quick time and return to their respective homes. In this I was mistaken; they never offered to leave or show any signs of discontentment. The next morning I examined the hives and found all combs (brood) so nicely covered with bees that I felt perfectly safe in liberating both queens that same day. They were both accepted, began to lay in proper time and built up their colonies during the remainder of the season as well as any I had in the yard.

But the season proved a great disappointment after all; the anticipated basswood honey-flow did not materialize. After the bees worked a very little for two or three days, some just began in sections, they stopped again completely and never stored any more, even in their brood-chambers, so that many depended on feeding for their winter supplies.

LaSalle, N.Y., Nov. 30, 1900.

WEAK COLONIES IN THE SPRING.

BY ARTHUR C. MILLER.

THE treatment of weak colonies in early spring is the subject of many essays, and all seem to be but variations of some two or three methods. I have tried many of them only to be dissatisfied, and finally started out on experiments for myself, and it is concerning these I would ask your attention. My first endeavor was to ascertain the cause of colonies being in such a condition at that time of year, and my conclusions were as follows:

First. Too late or improper preparation in the preceding fall. Second. Not enough bees reared in the latter part of the summer to give the colony a sufficient population of vigorous bees. Third. A weak and failing queen. Fourth. Poor or insufficient stores; or a combination of any two or more of these. The order in which they are stated is nearly the order of their importance. To determine which one or more of these causes have affected the colony under inspection is not always possible, but with the exception of a case where the queen is of valuable blood and to be saved, the treatment may be the same for all. It is to destroy the queen and unite the weak with a fairly good colony, making it as strong as the strongest. Simple, quick, efficacious, and all colonies are made as nearly as possible of equal strength at the same time, which makes easy and uniform our future manipulations.

Where I desire to save the queen, I take from her all brood but what is sealed, leave her enough bees to make a good nucleus, putting the other brood and bees in some strong colony. This keeps the queen alive and laying slowly until such time as I wish to make other disposition of her, and it puts very few useless workers in the field—useless because non-producers of surplus.

With due and proper care in the fall, weak colonies should not appear in the spring, and where they do, after such care, it is safe to lay it to the queen and destroy her.

I wish to make an earnest protest against the advocacy of the practice of drawing from the strong to build up the weak. The result is to always weaken the strong and to seldom make the weak enough stronger to be of substantial value in the honey-harvest. To unite two or more weak colonies in the effort to get one strong one is a practice seldom attended with that result, the united colony generally dwindling to meagre proportions. I concede that in some places where time is not valuable and harvest comes late, it may be worth while to build up these weak colonies, but in southern New England it decidedly is not. It is the number of strong working colonies that count, not the number of hives occupied by bees. You may take it as an axiom that it never pays to fuss with and nurse weak colonies.

Providence, R. I., Jan. 4, 1901.

ARE WE BUSINESS-LIKE?

BY ARTHUR C. MILLER.

DO WE as a class put enough capital into our business? Observation extending over twenty years brings me to the conclusion that we do not equip ourselves to do our work in the most economical way. The bee-journals are full of descriptions of home-made makeshifts of various apicultural implements which it would have been far cheaper to have bought in substantial and well-made form from some manufacturer or supply dealer. Just look at the number of bee-keepers who try to make their own hives etc., who get along with a cheap, (?) poor smoker and with a low-priced, non-reversible extractor. How often do we find an apiary conveniently arranged with a handy, well-planned work shop and honey house? How many have sufficient extra hives, supers and extracting combs to take easy and quick advantage of heavy honey-flows? How many are equipped to so handle their bees as to make them yield all possible under any adverse conditions of the honey-flow?

Take the time this winter to go carefully over your whole plant and see how you can improve. See if you have enough capital invested with which to properly do the volume of business you are trying to do. Do not be afraid of paying a good price for a good implement for 'twill be money well invested if 'tis one that will save you either time or labor. You may say you cannot afford it. Can you afford to do business without it? Perhaps you cannot spare the cash for many things needed: if not, then get the most important thing first and the others as you can. If the business is worthy of your attention at all, it is worthy the best tools and implements to do it with.

Providence, R. I., Oct. 23, 1900.

ODDS AND ENDS.

BY F. GREINER.

IT has long been an open secret that the honey served at the hotels in Switzerland is an adulterated mixture, or, rather, an imitation that has never seen any honey. Mr. Dadant, on his visit in Switzerland has had occasion to eat this mixture. He found it not alone pleasant to the taste but he came to the conclusion that it must have been the genuine article, honey. German writers think it rather a joke on Dadant that he could allow himself to be thus taken in. It must be, they say, that in America the adulterators of honey have not made rapid strides to bring their art to perfection: and they assert that in Europe honey is so perfectly imitated that the adulterated article can many times not be distinguished from the real article. Further they say, such methods as given by Mr. Cowan in Chicago to detect adulteration, fail to give any result with such adulterated honey as is found on the European continent. It seems to me that the American mixers are bunglers and have no eye for business. At the New York State Bee-keepers' Convention it was stated that bogus honey found in the stores of the City of Geneva was of such a vile nature that it was thought one little bottle of it would be sufficient to last a family a month. How stupid it is for any one to offer such vile stuff for sale at all! It would seem that in the first place it should be made pleasant to the taste. They do seem to understand that part of it in Switzerland. It is said that their honey is made from corn syrup flavored with extracts distilled from flowers, and that chemistry fails to reveal any difference between hive-honey and the adulterated article.

I have known bee-keepers in Virginia to add some granulated sugar syrup to their blue-thistle honey; I have spliced out my own product this year in a similar way in order that it might last us for our buckwheat cakes during the season. The addition of sugar syrup prevents the granulation of the mixture. I do not recommend to mix honey in this fashion for the trade; although it would often be an advantage if honey put up in glass could be kept in liquid form. The fancy trade wants clear, transparent honey, and it is a problem to keep pure honey from granulating.

Mr. Rice, of the New York State Farmers' Institute force, is an extensive apple and fruit grower in Westchester County. He spoke on spraying at a late Institute. "The time to spray is," he said, "before the buds open, then again a little after the petals of the blossoms have fallen. Never spray during the bloom, because you would not only kill a multitude of small insects that help in carrying pollen from blossom to blossom. but principally the honey-bees, the fruit-growers' friends; besides, you would materially diminish your fruit-crop."

Prof. Beach, Horticulturist at the New York Agricultural Experiment Station, made a similar statement before the New York State Bee-keepers' Association in Geneva. He said: "There seems to be a craze among some fruit-growers of certain localities to spray trees while they are in bloom. We have made some experiments placing pollen grains into a sweet fluid. There they would grow just as though they had lodged on the stigma of a blossom. By adding to this fluid two per cent. bordeaux or Paris green mixture, the pollen grains lost their vitality, showing that arsenic and sulphate of copper are detrimental to fruit setting. In actual practice we found that trees sprayed thoroughly while in bloom bore almost no fruit whatever; those not sprayed while the bloom lasted bore abundantly."

When scientists and the practical fruit-growers agree so perfectly on this question I hardly think there will be a great deal of trouble in the future between the bee-keeper and the fruit-grower along the line of spraying.

Queen bees are sometimes injured in the mails. I remember receiving two thus injured, one proved to be a drone layer, the other laid eggs sparingly and was superseded after a little time. I am of the opinion this latter queen would have been just as good for breeding queens from as though she had come through the mails uninjured. A friend and neighbor of mine does not agree with me. He wants a number of us here to go in partnership, send a man to some good queen-breeder, procure the queens and bring them to each of us in person, thus avoiding any possible injury to the queens. The project did not strike me very favorably. I have noticed this in my experience with bees: Before queens are superseded they generally fail in their egg-producing powers. They may even be without a leg or a wing, yet the young queen that takes her place, although originating from a defective mother, generally turns out to be a good queen. Injuries of queens resulting from accidents are transmitted to offspring no more than dehorned cows will produce hornless calves. I would like to hear from others whether they consider it safe to breed from queens that have come by mail.

Naples, Jan. 29, 1901.

[While Mr. Greiner in his first paragraph distinctly says he does not recommend mixing honey for the trade—and those who know him need no such assurance—his remarks in general border dangerously upon a fraudulent practice which we believe finds no quarter among producers. There is no one thing to-day which conspires with equal force against the financial success of the honey producer. The very semblance of adulteration should be avoided. The practice of feeding sugar syrup for winter stores is not without evil effect upon our business. It is the moral right of any one to mix and partake of any mixture which his palate or economy may suggest; but we are sure that Mr. Greiner would have our younger readers know that he is now and always emphatically "down" on adulteration. The future success of bee-keeping is more dependent upon our ability to wipe out adulteration, than upon any other one condition.—Ed.]

POISONING BEES BY SPRAYING.

BY M. F. REEVE.

THE subject of the poisoning of bees by spraying with the arsenites was again discussed at a recent meeting of the Philadelphia Bee-keepers' Association and a committee was appointed to bring the action of the Society at its summer meeting to the notice of the different agricultural and horticultural associations of Pennsylvania, Delaware and New Jersey.

The previous action spoken of was the adoption of a resolution that, in view of the destruction wrought among the bees by having gathered poison sprayed upon fruit blossoms by fruit growers ignorant of, or indifferent to, the benefits derived from bees on the fertilization of such blossoms, the Association strongly condemned such practice by fruit growers and advised that spraying be done at the proper time, that is, before and after the trees are in blossom.

The Association also discussed foul brood and the possibility of its introduction into this vicinity. Intending buyers of combs, queens and bees were advised to find out the condition of the selling apiaries. It was pointed out that a possible source of the disease was in wax brought from Cuba, to be used in fabricating comb foundation, the heating necessary for manipulation not being considered sufficient to kill the germs. Three hours at boiling point (212 degrees) had been found to be necessary. Vice-president Flower said he would not feed store or purchased honey if it were given to him.

The movement for the formation of a Pennsylvania State Bee-keepers' Association moves along slowly.

Rutledge, Pa., Dec. 22, 1900.

* * *

W. M. Gerrish, East Nottingham, N. H., keeps a complete supply of our goods, and eastern customers will save freight by ordering of him.

THE W. T. FALCONER MFG. CO.

Our Amateur Table.

A CASE OF SUPERSEDURE.

Wellsville, N.Y., Feb. 11. 1901.

Editor Bee-keeper: On page 29 I note a query under the heading, "A Nut with a Dollar in it." I do not want the dollar, but should say the cause of the swarm leaving was that the colony was superseding its queen. I have had the old queen tolerated for quite a long time after a young one had hatched. Probably more than one queen was raised, hence, the swarm.

Yours truly, H. J. Rogers.

Eddy, N. Y., Feb. 11, 1901.

Editor Bee-keeper: I think the reason the swarm ran away and left the old queen in the hive was that another swarm came out a few days before and went in this hive; and, as soon as weather permitted, came out again and started for the woods, leaving the old clipped queen in the hive. During the time they were in the hive they had found a tree and when they came out they started for it. Yours,

T. H. Barber.

Wayland, N.Y.. Feb. 7, 1901.

Editor Bee-keeper: The answer that I should give to the question on page 29, February issue would be that the weather being unfavorable, the swarm remained in hive until one of the young queens hatched, then as she took her wedding flight she was followed by the swarm, and not being mated she led off instead of clustering. Yours,

W. W. Shepard.

GETS THE DOLLAR.

Baders, Schuyler Co., Ill., Feb. 9. 1901.

Editor American Bee-keeper: In answer to question on page 29 of The Bee-keeper. The reason the gentleman's bees absconded was because the weather was unfavorable and swarming was held back until the young queen had hatched and, of course, swarmed with the young queen. Both queens, of course, went out with the swarm, but the old one being unable to fly, crawled back into the hive, and the young queen went with the swarm. It seems these bees left immediately for the woods without clustering. Now, this young queen was a virgin, and these virgins are known to perform just such capers as this. Very respectfully.

M. H. Lind.

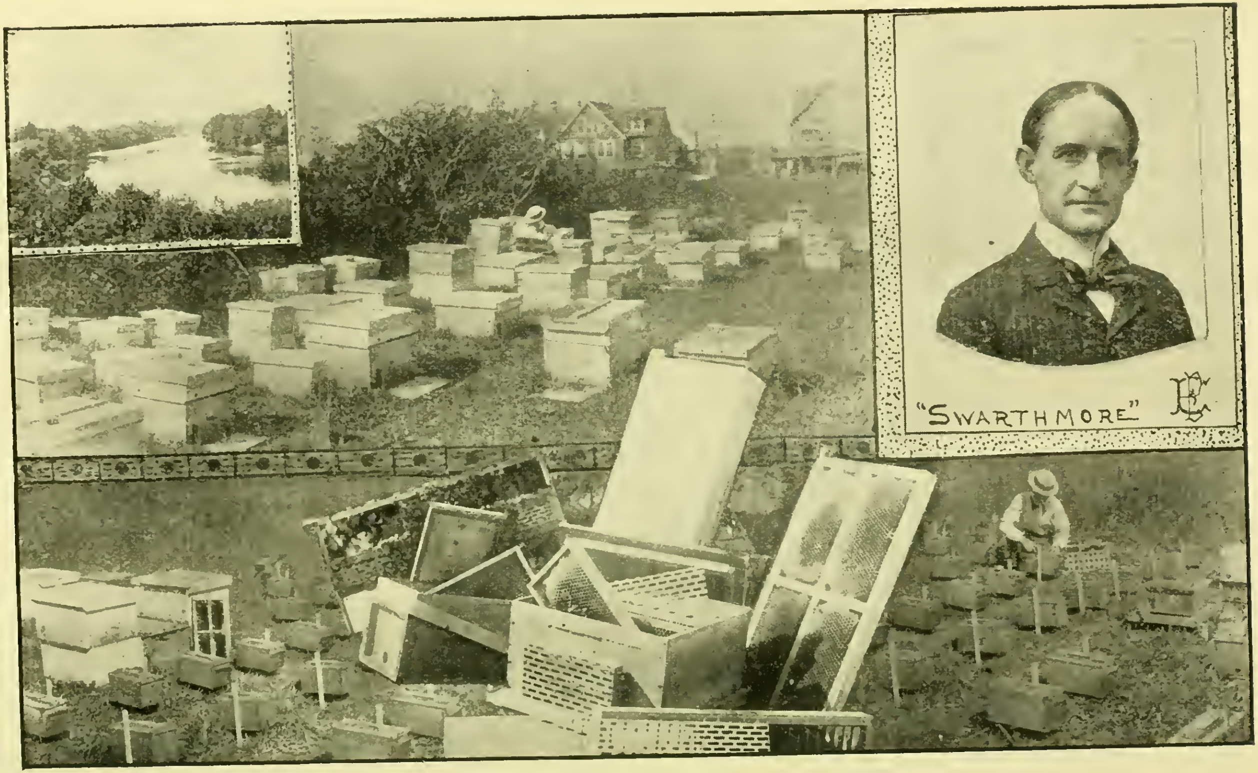
[Right you are, Mr. Lind; and your dollar was mailed to your address on the 14th of February.—Editor.]

A NEW CONTEST.

During the past few months the Editor has formed many new and pleasant acquaintances among our rapidly increasing circle of amateurs and beginners in bee-keeping. He has not only had the pleasure of offering suggestions which have evidently been received with gratitude and profit by those who solicited advice; but has learned some things himself as a result of this pleasant correspondence. One thing of particular interest: That very many of these small bee-keepers, from whom we seldom hear through the press, have ideas and methods of their own, which are as interesting as they are original. From this great army of beginners must develop the apicultural writers of the Twentieth Century. The American Bee-keeper is too impatient to wait fifty or seventy-five years in order that these developments shall be revealed in the natural course of events. We want as many as will, to write as once, giving their views upon the following subject:

GETTING READY FOR THE HONEY CROP.

Each month, until further notice, we shall pay for three letters, to be publshed in this department! For the best discussion of the subject named in the previ-


"SWARTHMORE"

THE SWARTHMORE APIARIES. (See page 43.)

ous number of The Bee-keeper, and received not later than the fifteenth of the month, we shall pay $1.00; for the second 50 cents; the third 25 cents. We reserve the right to publish any article submitted, whether it wins a prize or not. All unavailable manuscripts will be returned if requested by the contributor when sending it in. Short letters are always more acceptable than long ones. Waste no time on apologies. Write to the point as much as possible and address your communication to

H. E. Hill, Ft. Pierce, Fla.

HE WON ONE ON NUMBER ONE.

Baders, Ill., Feb. 18, 1901.

Editor American Bee-keeper: Yours of the 14th inst., enclosing $1.00 for the correct answer to question in Amateur Table of February number, received. I feel greatly obliged to you for your promptness. Wishing The Bee-keeper success, I am, yours, M. H. Lind.

P. S.—I have received but one number of The Bee-keeper and can say that it is a splendid bee-journal; and if all its readers would join in and contribute to its columns, no doubt it would still be a help towards improving it.

I will give you a little report in regard to my bee-keeping.

In the spring of 1900 I came through the winter with forty-three colonies in good shape for business; so about April 20th I began to spread brood in the strongest colonies, and by the time white clover was in full bloom I had most of my hives running over with bees. But as the weather was too dry and the nights too cool, the white clover yielded but very little nectar for about two weeks and the consequence was that most colonies that had drones were killing them off and so stopped swarming, so I only got one swarm for the season. Then, somehow, the parent hive lost its queen, so I united them with the swarm, which left me without any increase. My honey-crop was all comb, and the average was about 22½ pounds per colony.

So far this winter my bees are wintering finely on their summer stands, packed on three sides with forest leaves and A. Hill's device, and chaff cushions over the brood-chamber.

Now, Mr. Editor, if you find any thing that will be of benefit to the readers of The American Bee-keeper, you can use it for publication; if not, cast it in your waste basket. M. H. L.

THREE ESSENTIAL POINTS IN QUEEN-REARING.

To rear good queens, equal to those reared under the swarming impulse, three essential points must be observed:

They must be reared from small larvæ. Those twelve to twenty-four hours old are just right for the purpose. If bees are given larvæ of all ages from which to rear queens, some of the queens will be almost worthless. Doolittle puts the limit at thirty-six hours; but to be on the safe side I would advise the use of larvæ not more than twenty-four hours old; for no queen-breeder will say that the former are better than the latter.

The queen-cells must be built in full colonies well supplied with young bees. The young bees do the nursing; therefore it is necessary to have plenty of young bees to feed the embryo queens a large quantity of the royal food, that strong, well-developed queens may be produced.

They must be either reared during a good honey-flow or, in the absence of this, liberal feeding must be practiced. This is highly important and is the only way in which we can rear good queens after the honey-season is over.

During my twenty years' experience in queen-rearing I have tried every method which has been brought to public notice and I consider Doolittle's method far superior to all others. This method combines the essential points mentioned above in the highest degree. By it we are enabled to have queen-cells built in the upper story of any colony devoted to the production of extracted honey having a queen excluding honey-board between the upper story and brood-chamber. Remove two frames from the upper story of such a colony, and in their place put two frames of unsealed brood. The object in doing this is to draw a large force of nurse-bees above to attend to the queen-cells. Two days later remove another frame from the upper story, spread the two frames of brood apart and place a prepared frame between them. By "prepared frame" is meant a frame containing a number of queen cell-cups, each supplied with a little royal jelly and a larva about a day old. About fifteen cells are as many as a colony should be allowed to build at one time.

In order to improve our stock for honey-gathering we must keep a record each season of our best colonies and rear queens from the stock giving the best results. Have them crossed as far as possible with drones not akin of other good stock. This is accomplished by stocking our apiary with drones not related to our breeding-queens. This is very important and must not be overlooked if we desire to improve our stock.

In presenting the foregoing, the *Ohio Farmer* says that the writer, a Kentucky apiarist, is considered one of the best queen-raisers in the country.

IS IT BEST TO KEEP BEES?

BY REV. C. M. HERRING.

THIS question is worthy of consideration by our farmers. During these long winter evenings of quiet thought and study, in which the plans and enterprises of the coming season are all talked over with the good wife and the boys, this question should come in for a share. In the midst of such a family council I would like to intrude myself and speak on this question.

Let the whole family be assembled—girls, boys, and, if you wish, the neighbors; and let every one be free to raise objections. Says the first speaker: "I like the bees, but I am afraid of their stings. That barbed, pointed sting that fastens in my flesh, and causes sharp pain and swelling, is what drives me as far as possible from the company of bees. If these creatures had no stings I would look upon them with favor!"

Yes, it is true this is one of the drawbacks in keeping bees. There is a universal dread of this poisonous weapon, and when its barbed point pierces our flesh it causes pain. But in time this evil will almost entirely disappear. There are remedies and devices by which it is controlled and diverted. Inside of a successful apiary the master has no fear. He knows when and how far to venture, and the remedy to be applied, and he moves among his bees as though they were so many flies.

And then, in many respects, the sting of the bee is a benefit. It is used as a trowel in capping the honey and preparing it for long keeping. And the dread of its power in the minds of all intruders and thieves is a constant protection to the hives and all the grounds. In all my long experience in bee-culture I never had but one hive which was attempted to be stolen; and that was only moved about twenty feet from the stand, when the enraged bees so chased away the robbers as never to return.

You object again that you have no gumption for such business, and if commenced you will make a failure. This is true with many who start out on this business without counting the cost. The work requires careful study and determination. Like all other business, it will not run itself. As for peculiar gumption, it is all a sham that many people have that they are not particular favorites of the bees and can never come into their fellowship. The man who has good common sense, determination and push, has the gumption required.

And while it is true that there is a diversity of talents among men, and some will succeed better than others, the cases are very rare, when the will is strong and the purpose is fixed, that the common man or woman will fail of success.

The trouble is that men purchase bees (often cheap bees), put them in the wrong place and then leave them to take care of themselves. They do not study and practice the secrets of the trade. The bees are neglected and soon the business becomes a disgust. If the farmer should treat his farm, his horse, his cow or his hens in this way, he would soon be digusted with the whole thing.

You object again to the expense and time required. It is true a good hive of bees costs money, time, care and work, and so do hens, pigs and cows. Good cows, good horses and a good farm cost more than poor ones. The same is true of bees, as in other things, the best are usually the cheapest. To commence and manage the apiary in a small way, at first, with good blood and good hives, is the true way to success. My neighbor who started in this way three years ago, nearly doubled his money the first year, and is now among the foremost in this business.

When properly managed it pays. It pays in honey, and it pays in pleasure—real comfort! It opens to the one who loves the business a little world of study and delight. And what is seldom taken into the account, it confers a blessing on his farm. It fertilizes all its blossoms; in the orchard, in the garden and out over all the wide domain. And thus the man who keeps bees is a public benefactor. All the shining hours his little servants are out upon all the blossoms that bear fruit in all the land preparing them for a bountiful harvest.

It is thought that the failure of the apple crop the last year, came largely from the failure of the bees to fertilize the blossoms, on account of so much stormy weather at the time of the apple bloom.

And then, what is sweetest of all, this business furnishes to the family board the choicest product in all the realms of nature. I do not see how the farmers can afford to let this most precious gift on all their farms go to waste when, by a little expense and trouble, it may be gathered in.

A Pointer.

EDITOR BEE-KEEPER: A pointer for those who, like myself, are forgetful: Here is a queen I wish to remove. The hive is all open; I hold in my hands the frame she is on, but I have no cage! It is a long way back to the honey-house; the sun is hot and robbers have found us. If I place the frame back into the hive in order to go and get the cage, I shall miss the queen; I can do nothing so long as this frame is in my hands. I want that queen! What shall I do? Simply place her, head in, carefully between the dry lips, close the hive and then go and cage her. See? I hold cells, root in, the same way, very often. "SWARTHMORE."

Swarthmore, Pa., Oct. 10, 1900.

LITERARY NOTES.

The March Modern Culture opens with a charmingly written and beautifully illustrated article on "Social and Domestic Life of the Modern Greek." Three short illustrated articles follow on "The Chinese Quarter of San Francisco," "Two Features of German University Life," and "Sugar Making—The Festival of Spring." Among the many other articles are, "Why the Fourth of March," "Ohio's President," and "Theodore Roosevelt—The Typical Man of the Twentieth Century."

A NEW STORY BY GELETT BURGESS.

Gelett Burgess has chosen a unique plot for his new story, "A Man's Part," to appear in The Ladies' Home Journal. It has the merit of absolute originality, and is so absorbing as to demand a close reading. It has to do with a sweetheart, a conflagration, a telephone and a sulky, repentant suitor.

OUTING FOR MARCH, 1901.

Outing for March is a winter number and draws upon three continents for its seasonable sport, "Winter in His City Home," is Quebec in sleighing, snow shoeing and tobogganing; "Norway's National Sport;" "Carrying the Mail Over the Andes on Skis," "European Figure-skating" etc., all profusely illustrated.

THE AMERICAN BEE-KEEPER

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H. E. HILL, - - - - - - EDITOR.

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☞ Matters relating in any way to business should invariably be addressed to

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☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

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Editorial

Our Colorado exchanges, the *Western Apiary* and *Western Bee-keeper*, have failed to "exchange" for several months. What's up?

That it is injurious to queens to confine and transport them is a matter which Mr. A. C. Miller appears not to doubt and in the next number of THE BEE-KEEPER this thoughtful and studious writer will handle the subject from a new standpoint.

A Schenectady (N.Y.) correspondent desires information in general concerning the bee-keeping advantages of Massachusetts. He would like to learn, particularly, whether it is superior to Central New York, and what part of the State affords the best pastorage. Can any of our readers help him out?

W. F. Ordetx, Cienfuegos, Cuba, under date of January 22, says that the present season has been the poorest ever known in that section, and concludes the information with this paragraph: "I started with eight colonies in December and now have twenty. They will soon be ready to divide again." No doubt that report is rather discouraging to one of Mr. Ordetx's enthusiasm; but he would be surprised to learn how very little sympathy it will elicit in these United States of America where almost any of us should consider ourselves very fortunate to accomplish in two whole years what he has done in two months or less. That projected second division of colonies, so late in the season may prove a hazardous proceedure.

Another effort is being made by the bee-keepers of Michigan to secure the passage of an adequate foul-brood bill. It is to be hoped that no disgruntled member of the fraternity will feel it his duty to oppose so important a move this time. It is of vital importance that each State should have a good law relating to this disease among bees. If the disease does not exist there will be no demand made upon the State Treasury, and if it should be imported, the state, which has thus wisely taken the precautionary measure, is in a position to nip it in the bud. In either case the expense would be light, or nothing at all; but if the malady is permitted to become established before a move is made to draft a suitable bill, who can foresee the end of that state's trouble? Of all the great sisterhood of states, none stands more sorely in need of some such protection than Florida; but its lawmakers have not yet recognized the importance of the matter.

SOUTH DAKOTA BEE-KEEPERS.

The first annual convention of the South Dakota Bee-keepers' Association was held at Yankton on its first birthday, January 25, 1901, more than fifty per cent. of the new Association's members being present, notwithstanding the discouragements of the past poor season in South Dakota. The Convention report, a copy of which Secretary Atwater has kindly sent us, shows that a most interesting program had been prepared for the meeting. It is no doubt to this fact that the great interest shown in the meeting by its members is due. The progressiveness of this Society isshown in several ways; but in none more emphatically than the promptness with which it became a member of the National Association, as a body. There are many other bee-keepers' societies which might profit by an emulation of the South Dakota example.

At the election of officers, Mr. Thos. Chantry, of Meckling, was re-elected president; J. M. Hobbs, vice-president; J. J. Duffack, general manager and E. F. Atwater, Yankton, secretary.

The *Bee-keepers' Review* recently referred in a very complimentary way to the late improvements in THE BEE-KEEPER, especially noting the fine appearance of our half-tone engravings for which the editor was given credit. This kind remark by Bro. Hutchinson gives rise to the thought that very many of our readers are not aware that THE BEE-KEEPER is now printed and issued complete from its own home, at Falconer, N.Y., where the publishers have a most complete printing equipment, consisting of seven presses and proportionate material. In this connection it may be well to define the relation now existing between the Editor and Publishers. So far as the mechanical or business side of the enterprise is concerned, we have nothing to say; those matters belonging wholly to the proprietors, and all communications relating in any way to these departments should, therefore, be sent to them. For any noteworthy achievement or shortcomings, The W. T. Falconer Manufacturing Co. is responsible, in so far as they relate to typography. We certainly agree with Editor Hutchinson that they are doing their work well. It is the province of H. E. Hill to select and contribute the entire contents of the magazine—illustrations and printed matter. Therefore, all communications relating to his department should be addressed to Fort Pierce, Fla. We have nothing to do with the advertising pages further than to settle our own advertising account four times a year.

FOUNDATION IN COMB-BUILDING.

Foundation in Comb-building was the subject of a very interesting series of experiments conducted last year at the Colorado Experiment Station. A brief summary of some of the most important conclusions reached was reported by Prof. Gillette substantially as follows:

The wax in foundation is freely

used to extend both the septum and side-walls of the cells. The heavier the foundation used, the heavier will be the comb built upon it. If the septum is thicker than that of natural comb, the bees will not thin it down. Drone-comb has a heavier septum and cell-walls than worker-comb. Foundation with a very heavy septum and very slight walls will produce a comb having heavy walls. When heavy foundation is used, the extra weight of the comb is due more to the extra weight of the walls than of the septum. When foundation containing enough wax to build the entire comb is used, still more wax is added by the bees, sometimes nearly enough to build the comb without the help of that contained in the foundation. Wax (foundation) seems to be given with the best economy when the septum is of the thickness of that in natural comb and but a moderate amount of wax contained in the walls. Poorly attached combs in the sections, appear to be more the result of weak colonies and scanty honey-flows than of the kind of starter given; though large starters and strips of foundation attached to the bottom of the section do help to secure a more complete fastening of comb to the wood. Separators are essential to the best results in producing comb-honey. The thicker the comb, whether natural or artificial, the greater proportion of honey to wax in it. In natural comb, one inch thick, the proportion of wax to honey is between 1 to 20 and 1 to 25.

BEES AND FRUIT.

The *Florida Farmer and Fruit-grower*, a well-edited weekly journal, devoted to the interests which its name implies, in a recent issue quotes the greater part of our editorial, "Utter Foolishness," page 18, to which the editor appends the following foot-note:

> We gladly concede the immense value of bees to all fruit-growers and would not wish to see a single bee less than we now have. Sometimes, however, we get a little impatient with apiarists for the excitable haste with which they assert that their favorites do no injury whatever. The fact that bees, when confined with grapes and other fruits, died before they would puncture them, proves nothing any more than does the fact that some Florida cattle when penned up. will die before they will eat the best article of hay that can be provided. Bees' tongues are so formed that they cannot be said to puncture fruit; but that does not prevent them from sucking skins until they break. Highly-bred fruits have exceedingly tender skins, as witness the grapes of France, which crack open at their own accord and emit a few drops of nectar which are collected to make the choicest wines. A fruit with so tender a skin could not be shipped, and if the bees do suck and break the skin, they are not doing any serious injury.

THE AMERICAN BEE-KEEPER notes with pleasure that *Florida Farmer and Fruit-grower* belongs to that class of well-informed agricultural journals which recognize the interdependence of the kindred pursuits —apiculture and horticulture. It is a gratifying fact that all the leading horticultural journals now freely concede this much; but just why Bro. Powers' patience should be wrought upon by the disinclination of apiarists to "'fess," like Topsy, to a charge of which they are obviously not guilty, we fail to understand. We have never known a bee-keeper to make such a sweeping claim as is attributed to them in the foregoing extract. Every experienced bee-keeper must have known of instances wherein bees have been justly adjudged a nuisance: and it is every bee-keeper's plain duty to avoid such conditions so far as possible; though they are matters not always under his control. In the matter of puncturing or "sucking" holes through the skin of fruit, however, our contemporary has unwittingly afforded important evidence for the defense. If the editor of the *Florida Farmer and Fruit-grower* will institute a very careful series of experiments along this line, or engage the services of some competent expert in Sunny France to do so, we feel sure he will find invariably that, where bees collect the nectar of which he speaks, the fruit has first "cracked open at their own accord" and that the bees, instead of injuring the fruit, are simply cleaning up a nasty, sticky mess, which would otherwise remain to annoy the harvesters of the crop. The evident sincerity of our contemporary in believing bees guilty of sucking holes through the skin of fruits, does not change the nature or anatomy of the insect; and both proclaim its innocence.

DO BEES DAMAGE FRUIT?

Elsewhere in this number we have noted what we believe to be an erroneous position upon this subject, held by the *Florida Farmer and Fruit-grower.* Since the item referred to was put in type, our esteemed contemporary, in justification of its views, publishes the following:

> DO BEES DAMAGE FRUIT?
>
> The question came up in Hungary in a practical way two or three years ago, when grape-growers in a certain district accused the insects of puncturing the ripe berries, writes John B. Smith in *Rural New Yorker.* The matter was referred to Prof. Josef Jablonowsky, the State Entomologist at Budapest. All the evidence known to him was against the charge, and none of the observations at and near Budapest gave the least support to it. But no amount of negative evidence can discredit even a single positive observation, and he visited the district where the crime was committed. I saw Prof. Jablonowsky at Budapest in June, 1900, and he told me there was no doubt that the bees were guilty as charged. But in extenuation it was said that there was absolutely nothing else for them to eat at that season. The region is semi-arid, and, while there are plenty of spring flowers, there is nothing for the bees after midsummer. What was at first an occasional feeding on a broken grape developed into an occasional attack on a sound one, and this became a universal habit in a surprisingly short time.
>
> The mouth parts of a bee, while beautifully adapted for gathering nectar, have also well-developed jaws or mandibles, and there is absolutely no reason why they should not puncture ripe fruits to get at the juices, if there is nothing else equally attractive. I do not believe that the fruit-piercing habit is at all a normal one, and, so far as my own observations go, I have never seen a bee on any fruit not previously injured by some other cause. I would be always inclined to seek a prior break rather than consider the bee guilty. I am a believer in bees, and frequently suggest bee-keeping in large orchard areas. I think their work in securing a set of fruit far outweighs the little mischief they may cause on ripe examples. And, after all, if lack of suitable food is really at the bottom of their raid, why not feed the bees? Deliberately sacrifice a few juicy fruits to them, or a few pans of sugar-water or diluted molasses. Or plant a clover-patch where they can get in, or buckwheat, or whatever else may be in honey-yielding condition when the fruit ripens; but keep the bees by all means. The trees need them.

This journal is aware that there are some learned men who honestly believe that bees do puncture sound fruit. It is aware, also, that their number is on the decline. Our own experiments in the matter are to a great extent responsible for our present opinion that bees do not, and will not puncture a sound grape, than anything we may have read on the subject. Hence, to adopt the logic of Mr. John B. Smith, it will require no small amount of opposing evidence to cause us to relinquish our faith. Although Mr. Smith shall have full credit for the excellent judgment displayed in general, that he is not a practical bee-keeper is self-evident. The "well-developed jaws" of the bee are not so well adapted to puncturing fruit as might be imagined. A sand-blast will cut the hardest steel though it has no effect upon the finest fabric. The mandibles of the bee will readily cut fibrous substances, such as cloth, wood etc., but appear to be incapable of effecting such a smooth and yielding surface as the skin of the grape.

We have suspended clusters of ripe, thin-skinned grapes in the brood-nest of a populous colony at a season when there was absolutely nothing in the way of sweets to be secured in the field. These grapes were left for more than a week in this position. In their efforts to remove the objectionable quantity the bees had gnawed away some of the stems, allowing the fruit to fall to the bottom board. Some were propolized to the combs and patches of wax and propolis had been applied to the surface of the fruit. The experiment was conducted in a two-story hive built entirely of glass and containing sixteen Quinby frames. The bees were constantly working to remove the offending mass; but not a single grape was cut. This is but one of hundreds of equally severe tests to which bees have been put. In the face of such facts, does Mr. John B. Smith or any other man, who will recommend planting clover to keep bees from puncturing grapes, expect bee-keepers who, by thorough and repeated tests have decided the case for themselves, to expel from their minds the firm impression made by these personal experiments, and accept Prof. Jablonowsky's "no doubt that the bees were guilty as charged?"

It is the opinion of THE AMERICAN BEE-KEEPER that there is no better living authority on bees than Prof. A. J. Cook, who, in his "Manual of the Apiary" says: "I have laid crushed grapes in the apiary, when the bees were not gathering, and were ravenous for stores, which, when covered with sipping bees, were replaced with sound grape-clusters, which in no instance were mutilated. I have even shut bees in empty hives on warm days and closed the entrances with grape-clusters, which even then were not cut." Would this, in part at least, offset the Hungarian Professor's "no doubt"?

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

BUFFALO, N. Y. Feb. 18.—The demand for the best grades of honey is much improved, but dark is still slow. Receipts lighter. Fancy comb. 15@16c. Extracted 7@8c Fancy pure beeswax 27@28c., with light supply. Trade is much better on good honey and some more can be used. BATTERSON & CO.

BOSTON, Feb. 18.—No change in our market. We quote as before: Fancy No 1 white honey in cartons at 17c.; A No. 1, 16c.; No. 1. 15@16c., with fairly good demand. Absolutely no call for dark honey this year. Extracted, white, 8@8½c.; light amber, 7½@8c. Beeswax 27c.

BLAKE, SCOTT & LEE.

CHICAGO, Feb. 10.—Fancy white comb, 16c.; No. 1 white 14@15c.; fancy amber, 12@13c.; No. 1 amber. 10@11c.; fancy dark 10c; No. 1 dark, 8@9c.; white, extracted, 7¼@8c.; amber, 6½@7½c.; dark, 6@6¼c. Beeswax, 28c.

R. A. BURNETT & CO.

NEW YORK, Feb. 18.—The market for both extracted and comb honey is rather dull at present. We quote: Fancy white comb, 15c. per pound; No. 1 comb, 14c.; No. 2 comb, 12c.; buckwheat, comb, 10c.: buckwheat, extracted, 5½c. Beeswax, 28c, per pound.

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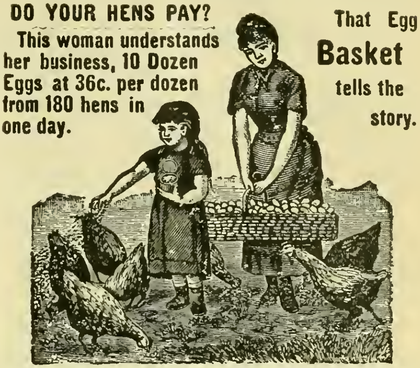
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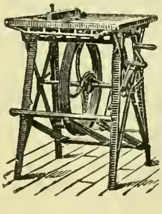

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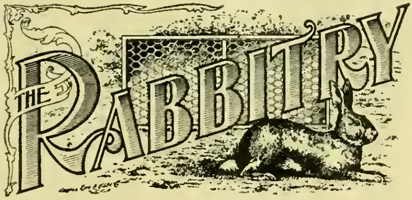

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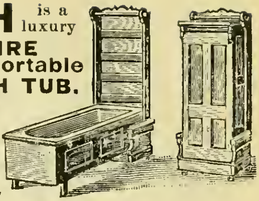

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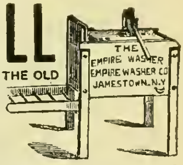
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1901

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No. 4

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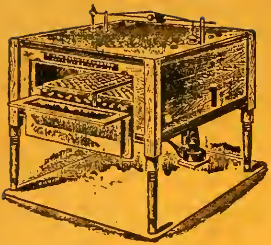

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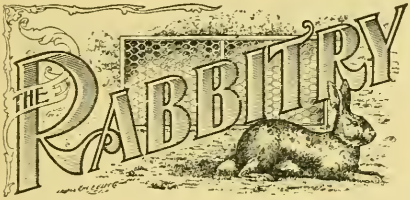

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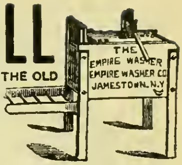

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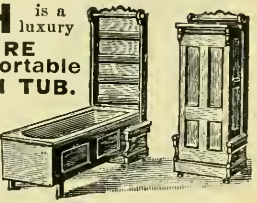

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI APRIL, 1901 No. 4

CLIPPING QUEENS' WINGS.

BY G. M. DOOLITTLE.

WHEN the spring has fairly opened, so that settled, warm weather appears, one of the things to be done is to see that all queens have their wings clipped; and queens are much more readily found before the hives become very populous with bees than they are later on when the swarming season arrives. This clipping of queens' wings has been under discussion in our bee-papers for years; but as there are always new readers entering our ranks, it is well to talk occasionally about what some of the older ones are already familiar with.

The majority of our practical apiarists agree that to reap the best results, the wings of all laying queens should be clipped; but there are a few who are opposed, who claim that swarming is conducted with more labor, and also that such a practice will tend toward the weakening of the wing-powers of our bees in years to come. Without stopping to discuss this part of the matter, except to say that I believe both points raised are fallacious, I will tell the reader why I clip the wings of my queens.

In the first place I will give an item rarely spoken of regarding this matter, and one which I consider of first importance, which is, that a queen having her wings clipped short is much more readily found when looked for than one which has her wings; and as in our manipulations with the bees it is often necessary to see the queen, so as to keep her where we desire, this finding of a queen is quite an important item.

Second. In the swarming season we have complete control of the bees, so that we can compel them to do as we like. The prime idea of the clipping of queens' wings was to keep the swarm from going into the woods; but valuable as this idea is, there are still other points according to my way of thinking, of more importance than merely the saving of all swarms which issue. By having the wings of the queens clipped, swarms are hived without the climbing of large timber or mutilating valuable trees by cutting off limbs etc., the old hive being carried to a new stand while the swarm is out, and a new hive placed on the old stand into which the bees will run on their return after they miss their queen, thus practically hiving themselves, the queen being allowed to run in with the bees on their return. Then you are sure of getting the queen in the hive where you wish her, and if you wish to hold the swarm out on a limb or pole, while you are making a new hive or getting the cows out of the corn, you can do so, keeping them there as long as you please, even up to a week's time. Then in case of two or more swarms clustering together they can be separated as easily as any stock mixed together could be.

And now I wish to have my say in regard to how I clip a queen, even did our good editor think last fall all other ways but his inferior. Having found the queen, catch her by the wings, using the thumb and forefinger of the left hand; and if you get all four of the wings you will never regret it after you see how readily a queen with no wings is found afterward. Having the queen by the wings, as above, take your jack-knife, which should have one of its blades kept very sharp for this purpose, and place the sharp blade on the wings of the queen. Now lower both hands down within an inch or two of the tops of the frames, so the queen will not be injured by falling, when the knife is carefully and lightly drawn, the wings severed and the queen runs unharmed down among the bees below. And no scent from your hands will cause the bees to ball the queen, for all you have touched that belonged to her were the wings which you now have between your thumb and finger. Don't be afraid of cutting your finger, for if your knife has a keen edge, and you stop drawing your blade as soon as the queen drops, you cannot do so. Having the queen clipped, close the hive and mark it so that you can know at a glance at any time that said hive contains a clipped queen.

Borodino, N. Y.

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BROOD CONTRACTION, BEE POISONING ETC., IN GERMANY.

BY F. GREINER.

SPEAKING of honey crops, Dr. Dzierzon says: "The art of securing a crop of honey in an off-year is understood only by those who have fully grasped what the nature of the bee is, in particular as it relates to their increasing tendency."

According to his ideas nothing is more detrimental to the storing of honey than excessive brood-rearing at a time when the harvest is on; but he says in good years the bees will crowd the brood-nest with honey sufficiently, and thus reduce the amount of brood in the hive to a safe allowance. In years when the flow is light, the bee-master must see to it that too much brood is not reared; he must contract the brood-chamber. Dzierzon advances here another and singular idea; he claims in a poor honey-season the bee-master will reap greater profits from his bees than in a good season, on the basis that in a poor season he alone has honey to sell, and that at a good price, while in a good season every bee-keeper has honey to sell, the markets are overstocked and the prices are too low to leave a profit.

The dangers of overstocking our markets in America are not to be feared to such an extent as it seems is the case in Germany; but otherwise there is much truth in all Dzierzon says. When there is a little honey coming in every day, a colony with a good queen will continue to breed and use up what honey is brought in by the workers. With brood reduced, some honey may be harvested; but it is a fine point when to contract and to what extent. Dzierzon's diamond rule to cage the queen and thus prevent all brood-rearing for a time, has been found wanting by all the best bee-keepers in Germany, such as Vogel, Berlepsch and others, and it is not practiced at all any more, and I believe only few American bee-keepers adhere to it now.

A brood-restrictor made its appearance in America a number of years ago, but we hear nothing more about it. The same thing has been re-invented by Kuntze, in Germany. He proposes to restrict to about three L-frames; says three L-frames of brood are sufficient to satisfy the bees and prevent over-populating the hives. The appliance consists of a hive made of perforated metal inside the hive proper, is not unlike a wide frame, being supported from the rabbet.

While I believe—yes know—that contraction can often be practiced with good results, yet I am well satisfied that three L-frames of brood do not satisfy the bees we have here, and it is not advisable to go to such an extreme. Five L-frames are the minimum and six are better.

It is stated in the *Leipziger Bienen-Zeitung* that bees stupefied with puffball will, when they regain consciousness, have no recollection of any previous occurrence. This peculiarity, if true, may be made use of in case of bees robbing, the robber colony to be treated; also in case of moving bees a short distance.

Poisoning bees is upheld by law in Bavaria. The bees of a bee-keeper in Grossengull were being robbed by those of another bee-keeper near by. The first named shut his bees in and placed poisoned honey near his hives. The result was that colonies of the neighbor were very seriously injured. Complaint was made and the offender sentenced to twenty days' jail and to pay a fine of $75. Exception was taken and when the matter came before the higher court the former decision was annulled. All bee-keepers of Germany should enter their protest: and it would seem to me there would be some work for an organization. I wonder if the Central Verein and the Wander-Verein of the German bee-keepers cannot take care of such a case. Cases of this kind speak very plainly for organization. The American bee-keepers are well situated, if they will only avail themselves of the opportunity offered them. To join the National Bee-keepers' Association is a cheap way of insuring against these possible dangers.

Naples, N.Y., Feb. 28, 1901.

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SHALL HONEY-PRODUCERS BUY OR REAR THEIR QUEENS?

BY L. E. KERR.

WITH the exception of rearing a few queens each year from colonies selected for breeding, we have found that in the time required for rearing any number of queens, with honey as the specialty, we can produce honey to the value of five times the worth of the queens. We rear a few queens each season in an endeavor to improve our stock, but aside from these, our efforts to rear the queens for our average colonies are not only more costly than if purchased, but it draws our attention from our special product.

Eternal vigilance is the price of excellence in the production of honey as well as elsewhere, and it tasks the undivided attention of the ordinary producer to obtain a gilt-edge article.

Of course the commercial queen-rearer can produce good queens very cheaply. The queen-rearer does not allow the production of honey to infringe upon his queen business, however, and no more can the honey-producer afford to let other attractions draw his mind from his special work. This can at least be said of anything which he can have as cheaply by raising his special product, and buying, which is shown by hives, for example. But the fact that queen-rearers and honey-producers are dependent upon each other is sufficient reason that they retain intimate relations and continue to discuss the vital questions of mutual interest, for it is absolutely necessary for each to understand the other's business thoroughly.

Hurricane, Ark.

* * *

A looking-glass placed before the hive-entrance is advised in the *Leipziger Bienen-Zeitung*, to scare away robber-bees. Perhaps it is thought that if the robbers could "see themselves as others see them" they'd quit their meanness.—*Am. Bee Journal.*

BEE PARALYSIS.

A Very Instructive Discussion of the Subject, Dictated by Experience.

BY O. O. POPPLETON.

I PROMISED some time ago that as soon as I knew the result of certain experiments not then finished, I would write out some of my experiences with bee paralysis in my apiary.

The disease is more widespread and serious than most bee-keepers realize. Twice within the last twenty years it has lessened the season's receipts from my apiary over twenty-five per cent., entailing a loss of about fifteen thousand pounds of honey and quite a number of colonies of bees. There is more or less of it every year.

The disease itself is exceedingly erratic—comes and goes without any apparent cause, and without strictly following any rules. Colonies in perfect health will sometimes be attacked suddenly, and in a very short time be reduced to a nucleus. At other times a diseased colony will suddenly recover without any known cause. For this reason no rule can be made by experiments with any one or even a few colonies. And now, after a personal experience with over two hundred diseased colonies, I more than ever realize how little we really know of the nature, causes, prevention or cure of the disease. While I am satisfied that it is to a limited extent contagious, I do not know exactly how the contagion is communicated. While in Washington, just after the Philadelphia Convention, Mr. Benton introduced me to Dr. Howard, United States Entomologist, and I had a short talk with him about his division making a scientific investigation of the disease. He asked me to call on him in his office and talk the matter over; but when I did so he was out. I was disappointed, as I hoped through him to get some real, definite knowledge of the disease and how to fight it. I still hope that some practical scientist will do this work for us.

I have not yet learned how the contagion, if any, is communicated, but I think through dead or diseased bees only. Last season I made some experiments to learn whether combs, honey or brood carried it, by taking away all the brood from what diseased colonies I had and giving them to certain nuclei. I built up six nuclei by giving them brood from diseased colonies, and so far (nearly a year afterwards) only one of these six colonies has shown any signs of the disease.

As several other colonies have taken the disease this spring, it is not very likely that this one took it because of these combs of brood and honey. That five out of six failed to take the disease after nearly a year has passed looks as though it will be safe to use all combs of either honey or brood. This simplifies the problem of what to do with diseased colonies and saves the loss of combs and brood as in cases of foul-brood.

Several years ago nearly or quite one-third of my apiary was diseased and the prospect was that I might have to abandon bee-keeping because of it, after nearly half of the diseased colonies had died. Experimenting with all the methods of cure I could hear of, the use of sulphur proved the only method of any value. This I applied to three or four colonies at a time, then in a few days to a few more. Then, after an interval to more and so on, until all had been treated. The result was the entire cure of each colony treated in the order of their treatment, while not a colony in the yard recovered until a certain time after treatment, showing conclusively that it was the treatment which affected the cure. I have used the same method more or less since then, but not to so great an extent. Out of some forty or fifty altogether which I have treated, all were cured by one treatment except three, which required a second one each. As many have reported failures in treating diseased colonies with sulphur, it looks as though they must have misapplied the sulphur some way, and I think it will be best to give in detail the way I have used it.

For reasons I will give later on in this, I always go to the colony I am to treat, during the day, and take away all the combs that contain brood; or, at least, unsealed brood or eggs, and give to some other colony; then in the evening, as soon as the bees have quit work and are all home, I proceed to dust sulphur over every comb in the hive and, if possible, on every bee in the hive. I never measure the exact amount of sulphur used, but presume about a tablespoonful to every three or four combs in the hive. I do the work by taking what sulphur I can hold between my thumb and first two fingers and dusting same over first one side and then the other of each comb, bees and all; also over any collection of bees there may be off the combs in any part of the hive. My aim is to have a thin dusting of the sulphur over every bee and every comb in the hive. The thinner the dusting the better so it reaches everything in the hive. I tried using an insect powder gun, but couldn't do as good work as I could with my fingers. The next day after doing this dusting, I carry back to the hives the same number of combs and brood as I had taken away.

The reason for taking away brood before dusting the combs, and returning again afterward is because the dusting of combs not only kills all the unsealed brood in the combs, but ruins these same combs for brood-raising. If such combs are left in the hive, all eggs deposited in them will hatch out all right, but the larvæ will die as soon as hatched. By giving these same combs to strong colonies, they will clean them out and use them all right, and no loss of combs will result.

For a week after dusting a diseased colony with sulphur, fully as many or more bees will be dying as before the dusting; and this fact may lead some to think the "cure" is not a cure. It will take a couple of weeks before one can tell whether the treated colony is cured or not.

Diseased colonies are usually very weak in numbers after being cured, and are of very little, if any more, value than a good nucleus. I have doubts whether it really pays to cure them except such as can be treated very early in the season, before nuclei can be profitably made. For the last year I have adopted the plan of curing such colonies as needed it as early as the middle of February, or even earlier; after that I make as many nuclei as is needed for the purpose, and as soon as they have a young laying queen I take away the combs from the diseased colonies, giving the brood to these nuclei, thus building them up into good colonies and destroy all the diseased bees with sulphur fumes.

In changing combs from diseased to other colonies I am very particular to know that each comb is absolutely free from bees, especially of dead ones that may be in some empty cells. Diseased bees quite often crawl into empty cells to die.

QUEEN-REARING.

A Friendly Discussion of some of the Fine Points in Developing Queens of the Highest Order.

BY W. H. PRIDGEN.

SAYS Dr. Miller: "Don't think that in thirty days you can learn as much about queen-rearing as Doolittle did in thirty years," which saying is worth repeating; for after these thirty years, in the same issue of THE AM. BEE-KEEPER Doolittle, in an article that furnishes much food for thought, leaves each one to "keep up a constant thinking on the 'Cardinal Principles of Queen-rearing' until the queen-rearing of to-morrow may reach a higher plane than has that of to-day." With all of his knowledge and experience it is evident that he does not think all has been told or that there is no room for further improvement, which is so different from the tone of a communication that appeared a few months ago from one who would rank as high as a queen-raiser and occupy as warm a place in the hearts of the people, but for his seeming unwillingness for others to differ with him in opinion. In the communication or article referred to there was a strong intimation that nothing new was being brought out and that it was all understood, which was calculated to discourage the timid, whose feeble efforts often bring out ideas that finally assume the forms of permanent improvements.

Mr. Doolittle says that there is much more that could be said on this subject; and, as he allows one to differ with him without quarrelling, I want to discuss some of his points so as to get at the bottom of the facts.

In the first place I doubt whether any one can exactly meet the requirements, with the feeder or otherwise, at other times, that exist when bees construct cells naturally; but when natural conditions do exist in the fields and hives we sometimes think we step ahead of nature, unaided, and this is the time to secure queens of the highest type with the least work.

The part I wish to touch upon principally is the construction of natural and artificial cups. According to my observations pre-constructed cups are very frail except the bases, which are, of course, very heavy, if the cups are constructed on old combs, as described by Mr. Doolittle. The bases vary in shape and size according to conditions, and the mouth of the shallow cup is almost invariably reduced to the size of a worker cell. These cups are slightly drawn out, but the openings kept about the same size, when prepared for the reception of the eggs, as well as often being provided with a gluey-looking substance at the bottom. As soon as the egg hatches the cell is increased in size and length so that the larva is a bee's length from the mouth all the time. During the time of development the cell is made heavy and strong, and not before the egg is deposited. Many times in early spring unfavorable weather prevents swarming after preparations are made, the cells are destroyed and, while others may be constructed on the return of good weather, around and about the heavy, thick bases of those destroyed, I have yet to note a case in which the old, thick base of the once mature cell has been used again. How bees increase the size of a cell inside or enlarge a worker-cell before building a queen-cell over it without first cutting it away, I have not learned, but have noticed that they prefer new comb, and suppose it is because it is more easily stretched. In such cases the larva is floated out and fed sufficiently after the larger portion of the cell is reached, not to be cramped in reaching the last meal. Still, I do not like this plan of securing queens.

Some colonies build larger cells than others, depending somewhat on the size of the bees, and for this reason very large hybrids are preferable, as they more often furnish large and long cells, instead of very long small ones, or very short large ones, as is often the case with pure breeds or races.

Mr. Doolittle puts much stress on having large bases, which might be necessary if the larva consumed all the food given, but the smaller the base the longer the resulting cell; and I would be glad if those who know would inform me how long after the cell is sealed before the last meal is taken? If shallow, thin artificial cups be used, the bees shape them to their liking and often attempt it by cutting away the heavy long, large ones—made heavy for man's convenience in handling—and everyone must form his own ideas as to which more nearly conforms to nature. When we have queens reared in blocks, we must have the holes in the blocks large enough not to cramp the larva; but if strips of comb or wax cups are used, we need not fear but that the bees will regulate the matter, as the queen always occupies the largest part of the cell when it is sealed. The cells are built naturally to conform to the requirements of the occupants, and for extra large ones we must look to hybrid bees with the cells built over hybrid queens.

An ordinary queen-cell is left a fraction over an inch deep when the queen emerges, and a well-fed larva is at least one-half inch from the bottom when the cell is sealed; and I am yet at a loss to see how the first one-eighth of an inch, out of which the larva is floated the second day, never to return, can effect the resulting queen, and especially as it reaches the larger portion of the cup at the age many recommend transferring them.

Some have one hobby and some another; and in the matter of queen-rearing, some put special stress on one point and others upon different ones, and my weak point, I suppose, is that I want the larva fed from the time the egg hatches so that it will float in the food. I find when it is abundantly fed, and while quite young, it will float to one side of the cup if the latter be tilted, and as all of the food is never consumed by well-developed queens, I suppose they take the cream and reject the clabber from start to finish, and therefore I am wedded to the plan whereby transfers can be made or larvæ used that are too small to be transferred even with a camel-hair brush.

Creek, N. C., Dec. 17, 1900.

* * *

"Now, boys," said the schoolmaster, "write a short composition on boys, bears and bees. Be brief and see who will be done first." On brevity, Billy scored ten: "Boys bes bare when they goes in swimmin'."

The Italian bee was first imported into America in 1859.

EXCHANGING COLONIES

As a Method of Building Up the Weaker Ones.

BY G. C. GREINER.

At the Canadian Bee-keepers' Convention, held at Niagara, Ont., in December, Mr. Herschiser asked, "Is it an approved plan to exchange a weak colony that has the queen and only a dozen or two bees left, with a strong one if saving the queen (a valuable one) is the object? In addition he reported that he had treated two colonies in this way, and the result was that he not only saved the queen, but received forty pounds of surplus honey in the bargain. I do not remember that any definite answer was given at that time; but as I have had some experience in that direction, I will make a few remarks on the subject.

The case as reported by Mr. Herschiser, is without any question a remarkable one. His locality must have been favored with an extra good late honey-flow and the queen one of the best honey-gathering stock. If I were always sure of getting forty pounds of section-honey from all my fair and better colonies during the whole season, I would consider bee-keeping a very profitable occupation. But supposing Mr. Herschiser did receive forty pounds of surplus honey from that weak colony, what about the strong one he stripped of all its flying bees?

Some twenty years ago we were handling a lot of bees for one of our customers. He had among the lot one colony that was something like the one Mr. Herschiser described. We knew very well that it could not survive any length of time, and told the owner that we could possibly save it if he desired us to do so. "Yes," he said, "do something for them, if you can." Bees were bringing pollen at that time quite briskly; so we exchanged this weak one with one of his strongest. After a few days we called again at the same place and our friend met us with these words: "Say, boys, you have spoiled one of my best swarms. I haven't seen one single bee fly from that hive in two or three days." We replied, "Just exactly what we expected and intended. But how is that weak one?" "Oh," said he, "they are all right; they are bringing pollen right along."

Now, our friend was not a professional bee-keeper, but his observations impressed him with the idea that we had spoiled one of his best colonies. Was he very far out of the way? If we have a special object in saving a colony or queen, the plan of exchanging may be all right; but is it a profitable operation, if surplus honey is our aim, to weaken a strong colony for the sake of saving a weak one, just at a time when the queen should be induced to do her very best in starting the working forces for our clover or basswood honey-flow?

Drawing the flying bees from a colony not only robs it of so many bees but it also deprives it of all farther supplies of new pollen and honey. The result is that the queen discontinues her labors in depositing eggs until new workers begin to take to the field again. Consequently there will be a corresponding shortage of workers at some future time—perhaps during a honey-flow—when they are needed to take the places of the constantly decreasing numbers of field-workers. It is not according to the "strong colony" theory. All bee-keepers agree that one strong colony is better than a half-dozen weak ones and not only that, but some bee-keepers even advise to make the strong stronger by drawing from the weaker ones.

But there is another point to this question. Years ago, in trying to make the whole apiary come up to a more even standard in regard to yield of surplus, I imagined that it would be a great scheme to equalize the colonies before the honey-harvest by this exchanging process. I found that the plan does not always work as we expect or wish, as it did in Mr. Hirschiser's case. In making the exchange we have to be somewhat cautious or we may lose all the flying bees of the strong colony, or the queen we wish to save, or maybe both. I have been compelled to change back because the weak colony would not accept the new comers, but would kill them as fast as they entered the hive. It depends very much on the disposition of the different colonies; if they are both of peaceable, good-natured parentage, all will be well, but if they are the opposite, of a cross, fighting disposition, especially the weak one, we may as well leave them to their own fate, for they will fight to the bitter end.

LaSalle, N.Y., Dec. 30, 1900.

QUESTION BOX

At the New York State Association of Bee-keepers' Societies' Convention, at Geneva, N.Y., January 9, 1901.

Q. As the honey-crop the past season was a short one, why is not extracted buckwheat honey worth as much as a year ago?

A. Cuban honey floods this State and Cincinnati, the duty on which is twenty cents per gallon; adulteration in New York City and Albany, affected those markets both this year and last.

Q. I would like a vote of this Convention on what size section it is best to begin with—4x5x1½ or 4¼x4¼x1¾?

A. About two-thirds were in favor of the 4x5x1½.

Q. What is the life of the drone?

A. About the same as that of workers.

Q. Do queens lay eggs in queen-cells?

A. Probably not.

Q. Has there ever been a bee-census? If so, where can it be found?

A. Yes, a very poor one, and can be obtained from the United States Census Bureau.

Q. What is the measurement of the longest tongue of a bee yet obtained?

A. 23-100 of an inch.

Q. Will Alfalfa clover produce honey in this locality?

A. No.

Q. Will we be able to combat the disease of black-brood successfully?

A. By Inspector Stewart: "Yes: we now have it under control."

Q. How shall we treat black-brood?

A. Obtain a book of directions from your bee-inspector. Keep Italian bees.

Q. I understand Mr.——— is buying honey from foul-brood districts to feed to his bees in the spring, thus causing the spread of foul-brood in Onondaga County. Can we do anything to stop this?

The person referred to was called upon and he said, "Treat the honey before feeding it to the bees."

C. B. HOWARD. Sec'y.

STORAGE RACK

For Empty Combs—Mending Sections etc.

BY M. F. REEVE.

IN the process of forming sections where you have no hand-press there is a liability to break a few in fitting them together. These need not be discarded. Have at hand a pot of prepared glue and a lot of stiff brown paper, such as hardware men use. Cut strips the width of the sections; apply glue and allow a couple of inches lap for each edge, and your section when the glue sets will be as sound as any other. Of course, these won't be marketable, but they will be as good as any if you are in the habit of treating your neighbors or visitors to a taste of "white clover," "goldenrod" or "buckwheat."

COMPETITION FROM CALIFORNIA.

There has been slight decline in prices of extracted and comb honey in the Philadelphia market, due to the influx from California. Local apiarists who had honey to spare and marketed it early, secured the top prices. So, as reports say, California rains have been profuse, the honey-crop in that section which has shown a falling off in some localities within two years past, will revive the competition.

STORAGE FRAMES.

I have my surplus drawn combs of half depth foundation stored for the winter in frames 19½x36, made of seven-inch floor boards, planed on one side and rabetted, so as to take in the tongue ends of the frames, crossways. By the use of this device one has his supers clear for the spring work, and when it comes time to put on extra half depth extracting frames, there you are. For a deeper frame to accommodate the regular Langstroth brood-frames, one of the boards sawed in half and nailed to the lower edge of the seven-inch frame gives the right depth and something to spare.

These frames are also good storage boxes for made-up frames which have not yet been filled with foundation, accommodating twenty-eight of them.

Rutledge, Pa., March 10, 1901.

Honey and Beeswax Market.

BOSTON, Mass., March 20. 1901.—There is no change in our market from prices quoted for February. Demand is good with light stocks.

BLAKE, SCOTT & LEE.

KANSAS CITY, Mo., March 20.—We have a good demand for honey with good supply. Price of comb, 14 @ 16c.; extracted, 6 @ 8c. Demand for beeswax is light at 23 @ 27c., with light supply. Comb honey is in good demand; stock sufficient for season's trade. No demand for extracted.

HAMBLIN & SAPPINGTON.

CHICAGO, Ill., March 20.—The choice grades of white comb-honey sell at 16c., with the supply about equal to demand; all other grades are slow of sale at the following range of prices: Fair grades of white, 14 @ 15c.; best ambers, 12 @ 13c., mixed colors, 10 @ 11c.; buckwheat, fancy, 10c.; off grades 8 @ 9c.; extracted white ranges from 7 to 8c.; amber, 6½ @ 7½c.; buckwheat 5½ @ 6½c.; Southern dark, 5 @ 6c. All of the extracted is governed by quality and flavor in the range of prices, the lowest figures, in either color, applies to the sour or off-flavored and unripened. Beeswax in demand at 30c. R. A. BURNETT & Co.

NEW York, March 22.—The present stock of comb-honey is very light in this market and the demand is not large. We quote, Fancy white, per ℔., 15c.; No. 1 white, 14c.; No. 2 white, 13c.; mixed honey, 11c.; buckwheat comb, 10c.: buckwheat extracted, 5¼ @ 5½c. Beeswax from 27c.

FRANCIS H. LEGGETT & CO.

BUFFALO, March 19.—Fancy comb honey is in excellent demand at present, but supply is light. Price, fancy comb, 15 @ 16c.; dark, etc., 10 @ 14c. Pure fancy beeswax is in fair demand with light supply, and sells at 27 @ 28c.; dark 22 @ 24c. If any fancy comb honey can be sent now, it will sell well. Dark, moderate. Extracted not wanted.

BATTERSON & CO.

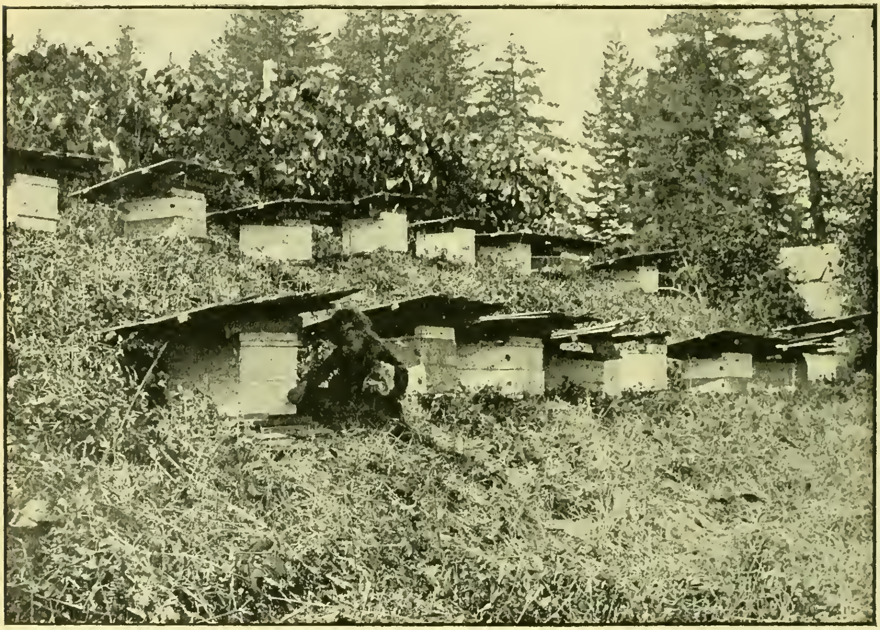
* * *

Owing to a delay on the part of the engraver to whom the work was entrusted, we are reluctantly obliged to close our forms this month without a fine portrait of Mr. W. H. Pridgen, of North Carolina, which we had intended to use as our frontispiece. It will probably arrive in time to use in our next isssue.

A NEW DRONE CATCHER.

In the *Bee-keepers' Review* for February, C. T. Bonney contributes a very interesting letter on the desirability of teaching apiculture to children, which is accompanied by the picture herewith presented. The *Review* has permitted us to use the engraving, and we feel sure that our readers will appreciate the sublime spirit of the picture. Our readers are aware that drone-catchers and queen-traps is a subject that has engaged our attention for some time; but of the scores of devices which we have tried and seen depicted, Mr. Bonney's "drone-catcher" is unquestionably the most interesting of all, and there is no doubt that as a "queen-catcher" it would be equally efficient. The *Review's* title, "Little Vera Bonney, Catching Drones," we have changed to suit our view of the subject.

We have several times in the past given pictures of these juvenile bee-keepers, and should be pleased to receive any such which our readers may be so kind as to send us, for publication, in the future.



A NEW DRONE CATCHER.

QUEENS.

Probable Cause of Their Injury in Transportation—Tested Queens etc.

BY ARTHUR C. MILLER.

IN THE BEE-KEEPER for January the editor comments on the injury to queens by mail, and he took nearly the same attitude as Mr. Alley and Mr. Doolittle, namely, that the injury is caused by the sudden cessation of egg-laying. Very, very near the truth; but the real trouble, I believe, is just a little deeper. A young laying queen in a full colony, or even a strong nucleus is being liberally supplied with rich, concentrated and quickly assimilated food. When she is removed for shipment it is entirely a matter of chance if she has a retinue of "feeding bees;" in fact, she is quite as apt to be shut off entirely from such food supply. She cannot as quickly stop the natural development of eggs with its attendant physical drain, and little or no proper food being obtainable, she is soon in an exhausted condition. According to the degree of such lack of nutrition and the duration of this semi-starvation, so is she more or less permanently injured.

He refers to a lot of fifty high-priced queens shipped in nuclei, and although confined but twenty-four hours, most of them proved worthless. As he doubtless knows, confined and frightened bees cannot always be depended on to feed the larvæ, and under the same conditions they probably would not feed the queen, so the same theory is not untenable in the case of the fifty queens. Also, the queens, while high in price, may never have been high in quality, even though the seller honestly intended to give full value for money received. Nearly the whole lot may have been injured in the embryo stage or through lack of access to proper food in the first few days after leaving the cell.

Mr. Simmins, of England, is very emphatic on the folly of keeping young queens confined in frame nurseries for a number of days after hatching, claiming that at that age, while they feed themselves, they need nitrogenous food and that it is vitally important to their development. Personally I cannot confirm or deny this, as I have never experimented thereon, and I mention it here only to draw the attention of our queen-breeders to the subject, hoping they may be able to throw some light on it.

So much depends on the quality of the queens that I feel as if too much cannot be said and written about it. And what to-day constitutes the different grades of "quality" is so uncertain that no one really knows just what to expect when he orders a queen of the "tested" or "selected tested" grade. I believe that much of the disappointment in purchased queens is due to the misunderstanding of these terms. "Tested"—just simply the markings, that's all; and when any queen-rearer also says that he means tested as to prolificness and possibly docility, I just cannot put much faith in the value of such "test" when the queen is sold at ordinary prices. "Selected tested", same plus size and color. What does it amount to? I do not consider it possible to form any really valuable estimate of a queen's worth by observing her in a nucleus such as most queens are tested in. The only thorough and satisfactory test is to try her for three months in a full colony; and no queen-dealer can afford to do that and sell the queens at current prices. Can we not get some more definite system of grading and get the business nearer to the same basis as that on which thoroughbred stock of the higher animals is reared and sold?

Providence, R. I., Feb. 12, 1901.

Our Amateur Table.

GETTING READY FOR THE HONEY CROP.

[A. J. Gray takes first prize.]

Birchton, N. Y., March 11, 1901.

Editor BEE-KEEPER: I understand that you want us to give our plans for each month, as you say a new subject will be named in each number; so I will give my method of working for the present time in getting ready for the honey crop.

Now is the time to get all your hives, section-holders and shipping-cases made up. Old hives and all interior arrangements should be scraped nicely, and see that you have plenty of frames, hives and all else in neat condition for the time when they shall be needed. During the latter part of the month you should paint all new and second-hand hives not in use. Let the first coat dry thoroughly before applying the second. Don't be in a hurry about putting together your sections until the weather becomes warm enough to handle foundation with safety. You can keep sections cleaner in the crate in which they are received; and it is not a long job to put up and fasten the foundation in four or five thousand sections, if you have the proper implements for doing it. If you have any partly filled sections that were left over from last fall, and have, of course, been extracted, now is the time to scrape them and get them ready for use. I try each fall to secure a lot of them so I can have about six for each section-holder. I put them in the center, and find it greatly encourages the bees to start work in the sections early. After a heavy rain, or, better still, after a thaw of March snows, go over the hive-covers and look for drops of water on the under side of them. If any are found mark with a pencil on the top side over the leak, a B, which stands for "bad." On a nice day, when covers are dry, take a wheelbarrow load of new covers and exchange them for the leaky ones. Take them to the shop, and if a cover is worth a piece of tin, paint the spot with good, thick paint, and with three quarter inch wire nails fasten on the tin. Do not leave one cover on a hive if it leaks, for it will discolor your sections, to say nothing of the poor little bees getting all wet.

If your bees are out-of-doors, you should keep all the dead bees cleaned from the entrance with a wire-hook. If any show signs of dysentery, the bottom-boards should be washed with warm water or exchanged for clean ones. It is a good plan to exchange for clean ones all the bottom-boards in the apiary, and have the soiled ones scraped and cleaned ready for new hives.

The entrance to all hives should be contracted by using blocks, so as to prevent robbing; but let each colony have as much entrance as it can guard.

Yours truly, A. J. Gray.

"WAKE UP!"

[Second prize.]

Wayland, N.Y., March 11, 1901.

Wake up to the new conditions and take The American Bee-keeper! Bees do not give surplus these years to bee-keepers who care for their bees in the same manner that their fathers did. The men who are reading and contributing to the bee-papers are finding out new kinks that are of value to the bee-keeper who doesn't live in a shell. If we only could get every man who owns even one colony of bees to take and read a bee-paper, what quantities of luscious nectar would be saved!

In getting ready for the honey harvest we must commence preparations the previous season. In this climate it is necessary that we should have strong colonies of young bees, abundance of stores to go into winter quarters, and hives well protected by outside case or double walled. These conditions give good, strong colonies to commence with in the spring.

This has been an exceptionally long winter; while it has not been extremely cold, we have had a good deal of wind and a heavy fall of snow. My bees have not flown since the 1st of November and the prospect is that they will not before April 1st.

Personally I prefer the Doolittle plan of getting strong colonies just at the right time for the honey-flow, which with us is about the 20th of June and continues until about the 20th of July, from clover and basswood. Then we have a fall flow from buckwheat, which usually gives us a nice surplus and plenty of stores and young bees for winter.

Bearing in mind that all this work comes at the busiest time of the year for the most of us, we will get all our fixtures ready while the bees are resting. Then instead of being driven to spend every spare minute in the shop, we can spend these minutes with the bees to our pleasure and profit; and at the first intimation of the honey-flow, on goes a super, and my experience is that we get little or no swarming, if the bees are given room at the proper time, therefore more honey. Yours, W. W. Shepard.

[Third Prize.]

Eddy, N. Y., March 11, 1901.

Editor Bee-keeper: I winter my bees in the cellar. The first thing after they are set out in the spring is to see that they have plenty of honey; and if not, to give them some at once. I use a two-quart fruit jar for feeding. I fill the jar with sugar-syrup and tie a piece of cheese-cloth over the top. This is inverted over a hole cut through the top-board and a piece of cloth over the center of the hive. I feed as often as is necessary to make my bees strong when the honey-flow begins. It is the strong colonies that call for the most sections. If any fail to breed up on account of having poor queens, re-queen them, if you can; if not, take them up. Have your sections ready as well as your hives, before the flow begins.

Yours, T. H. Barber.

As shown by the foregoing, we have not had a very encouraging response to our request for letters from our amateur friends. Perhaps it will be better to allow each correspondent to select his own subject in the future. We shall continue to keep the Amateur Department open for those who desire to patronize it; though it will be useless to obligate ourselves to pay a stipulated amount each month if there are not claimants for the prizes. If any of our readers have anything upon which they think they can write a letter which will be of interest to others, they are cordially invited to send in the matter for publication; and we shall be pleased to pay for all good matter received, if available.

LOSS AND DISCOURAGEMENTS.

East Thorndike, Me., Feb., 1901.

About a year ago I wrote a little article as an amateur bee-keeper which appeared in The American Bee-keeper, giving my experience etc. In a later number Mr. Doolittle made some comments on it. I very much appreciated his commendation and words of encouragement. No beginner or small bee-keeper who reads his articles and heeds his teachings can fail to profit by the lessons presented in his happy style on that subject he is so familiar with and so interested in.

Last winter and spring were very disastrous in this section of the country to bee-keepers of all classes. Nearly fifty per cent. of the bees died, and the summer proved a poor honey season. The honey supply was very meagre; many who usually market a considerable amount of honey failed to secure enough for their own tables. As spring was nearing, the condition of some of my bees caused anxiety; but the weather being unfavorable, as I thought, for thorough examination and feeding. A delay of a few days brought a fine, soft day, and I proceeded to examine some colonies, when, lo, and behold, nearly forty per cent. of my small stock of bees had ceased to be! When the effect of the shock had slightly subsided, I was on the point of taking the pen for the purpose of mingling my tears with those of other disconsolate bee-keepers, and to join the boo-hoo chorus; but in a little delay that occurred, hope sprang up and I directed my attention to the remaining bees. One colony was considerably reduced in numbers; while they had a sufficient quantity of honey, it was in a bad condition, being solidly candied, so much so that the bees seemed to make little impression on it. The comb in some of the frames was badly moulded. My first move was to place a clean, empty hive beside the hive to be handled. I then removed the mouldy empty combs, shaking the bees into the new hive, uncapped the honey and gave it a slight heating before the stove to in a degree liquefy the candied honey. This last process caused some doubt in my mind as to whether it would have met the approval of an expert bee-keeper. However, no harmful result was noticed. I closed the bees upon six frames, tucked the cushion up, making everything snug and waited for suitable weather in which to feed. I improved every opportunity to feed and had satisfaction in seeing a marked improvement from the time of the change from the old to the new hive, until the bees began to fly.

Though naturally pleased with the result, I then resolved that when fall should come around again, I would make doubly sure that the bees should be amply provided for in every respect for the trying seasons of winter and spring.

J. F. Heath.

LITERARY NOTES.

The Cosmopolitan for April has an article by Lavinia Hart in which she ably discusses What constitutes the ideal wife. It is said that the powers of either man or woman are developed fivefold by working with a life companion who is in entire harmony. The ideal wife as a rule has it in her power to make the ideal husband.

The Saturday Evening Post has, for early publication, a short, stirring serial, entitled The Outcasts, written by Mr. W. A. Frazer, author of Mooswa and Others. The Outcasts are an old buffalo and a wolf-dog, and a greater part of the story is about the strange comradeship and striking adventures of these companions, and their pilgrimage, in company, to the distant plains of deep grass, which the wolf-dog knew. There are action, and strength of word and phrase in the story, and the touch of the soil and the music and charm and sombreness of the forest. The rush of the frenzied buffalo herd to death is told with splendid dramatic power. The plan of the book is a unique conception, and is worked out on novel and entertaining lines.

The Ladies' Home Journal for April contains Richard Harding Davis's The Princess Aline in dramatized form, illustrated by Charles Dana Gibson. The Beautiful Jewess Who was Called the Princess of her People, and The Lovers of a Cheerful Giver are two other articles of interest in the same issue. Miss Griscom, the American woman golf champion, shows How Golf is Played in a series of photographs. Edward Bok further emphasizes the value of simpler living, and Helen Watterson Moody offers guidance through The First Tragedy in a Girl's Life. A Stucco Country House for $7.500; A Shingled Country House for $2.500, and Some Artistic Little Homes have a practical value to those planning to build homes. There are three short stories by Gelett Burgess, W. A. Frazer and Laura Spencer Porter, and Elizabeth Stuart Phelps's, The Successors of Mary the First, is concluded. W. L. Taylor's painting, The Barn-raising as a Social Event, worthily fills a whole page.

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☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

We should be pleased to correspond with some practical bee-keeper who is conversant with the French language. Address the editorial department of THE BEE-KEEPER, Ft. Pierce, Fla.

If you have neglected to apply for the postal cards and enter the competition for the $20 worth of supplies, write at once to the publishers for information in regard to it. You'll find it interesting.

One hundred and thirty-five completed queen-cells out of a possible one hundred and thirty-eight given to a single colony of bees is a most interesting subject of a very poor photograph recently sent us by Mr. W. O. Victor of Texas. Thanks.

Mr. A. I. Root, president of the company which bears his name, at Medina, Ohio, honored us with a call, February 23rd. Mr. Root was making a hurried trip through Florida in the interests of his house, which is well known throughout the bee-keeping world.

Editor George W. York, of the *American Bee Journal*, in his issue for March 14th, 1901, in a manner becomingly affectionate chronicles the death of his father, Mr. John B. York, of Randolph, Ohio, which occurred on the 3rd of March, at the age of seventy-one years and six months. We extend assurances of our condolence to Brother York in his bereavement.

Editor E. R. Root, of *Gleanings*, has under contemplation a six months' sojourn in California. Editing a bee-journal at a range of several thousands of miles from the publication office will probably act as a preventive of the ill effects which sometimes result from over-exertion in persistent mountain climbing and protracted outings.

From far-off Alaska, written on U. S. Government stationery, comes a letter by A. R. Heilig, a bee-keeper subscriber, formerly located at Tacoma. Mr. Heilig appears to be looking hopefully forward to the time when he shall again be among his bees in Washington. Tell us first, Mr. Heilig, about the bees and flora of that Arctic spur of our Uncle's domain.

Mr. L. E. Kerr, who writes on the same line in this number, says in a private note that his bees average a return of ten dollars per colony; that they have never known a failure in the honey-crop in his section of Arkansas, and that in the time required to produce ten dollars' worth of queens, they can produce $150 worth of honey. There must be an expensive method of queen-rearing in vogue about Hurricane.

There is a real funny little item now going the rounds of our bee-keeping exchanges, credited to the *Australian Bee Bulletin*, upon whom the *American Bee Journal* fixes the responsibility for the joke. It is remarkable how much more interesting an item becomes for having twice crossed the Pacific. In this case it was carried to Australia by THE AMERICAN BEE-KEEPER and carried back without credit by the *Bulletin*. It's interesting now.

We are always glad to have our contemporaries quote, paraphrase, copy or comment upon anything appearing in THE BEE-KEEPER; but we should like in all such cases to have this journal properly credited. To give as authority for extracts, "Editor Hill" without mentioning THE BEE-KEEPER is hardly a fair or satisfactory credit. When attention is due us, either favorable or otherwise, pay it to the journal, brethren; we shall endeavor to reciprocate

If you have a photograph of an apiary, or other apiarian subject, we should appreciate the privilege of seeing it. Whether we can make use of it in THE BEE-KEEPER or not, we will be interested in it and, if requested, return it uninjured to the owner. We have a great quantity of excellent matter for publication, though good pictures seem to be scarce. The editor would like to make the acquaintance of any of his readers who use a camera. We like to talk photography about as well as to discuss bees.

Owing to the heavy rains in California during the past winter it was thought that California honey would be very much in evidence in the Eastern markets this season. From a communication to *Gleanings* by M. H. Mendleson, one of the heaviest producers on the Pacific coast, it appears that the Eastern producers need not be alarmed. Mr. Mendleson says that there are not a quarter of the bees in California to gather the crop that there were prior to the two past seasons, which proved such a failure in his country.

So great has been the influx of new subscribers since the beginning of the new year, many of whom desired to have the volume complete, that, we are advised by the publishers, the January numbers have been exhausted, and future subscriptions will therefore of necessity have to begin with the April number. Several hundred new names have been added to the subscription list within the past month, and they are still coming by every mail. Each month adds to the pleasures and encouragement of the "up-hill" job which we were supposed to have undertaken.

Volume 1, No. 1 of the *Rocky Mountain Bee Journal* is before us. The new candidate for public favor hails from Boulder, Col., and H. C.

Morehouse is the editor and manager. As the birthplace of bee-journals Colorado has recently become a record-breaker; although we understand that the *Rocky Mountain Bee Journal* is the only apicultural periodical now extant in the West. It certainly has the appearance of greater stability than was displayed by its predecessors, and is well edited by one evidently conversant with the practical side of the industry which he has undertaken to represent. We gladly welcome the *Rocky Mountain Bee Journal* to our exchange table, and sincerely wish it success.

We are pleased to acknowledge the receipt of a copy of the 1900 edition of "A B C of Bee-culture," which last year underwent such a thorough revision. Perhaps no bee-keeping work extant has had so wide a sale as this most excellent volume. It has been so widely circulated that almost everywhere that one finds a colony of bees, there he will find a copy of some one of the many editions which have been published in the past. To any one fond of pictures, and especially if interested in bee-keeping, a study of its illustrations alone is worth the price of the volume. The new edition, we understand, is meeting with a sale proportionate to its merits; and its popularity is well deserved.

At no time of the year does skillful treatment and care of the bees yield so great a reward as that bestowed during the spring months. Avoid handling unnecessarily at all times and under no circumstances do so while the weather is cold. See that all colonies are provided with queens and with ample stores. Brood-rearing draws heavily upon the honey which they may have. Protect the hives in every possible way against the loss of heat. Upon the number of eggs laid by the queen up to the thirty-seventh day preceding the opening of the bloom from which the nectar is to be gathered, depends the bee-keeper's success. All laid thereafter are at a loss to the honey producer. Give the queen the benefit of every advantage you are able to bestow, in order that she may meet the honey-flow with an ample force of workers.

Our thanks are due Secretary Howard, of the New York State Association of Bee-keepers' Societies for a quantity of interesting matter relating to the work of the Association and particularly to its Convention at Geneva, last January. President Marks' annual address to the Convention is always spicy reading, and we shall have pleasure in publishing it in full at an early date. In this connection we take occasion to assure our New York friends that THE BEE-KEEPER would be pleased to receive photographs of each member of the Advisory Board and the entire officiary of the Association. We trust each will consider this a personal request, and that they will kindly mail, at the earliest possible moment, a good clear picture, direct to the Editorial Department of THE AMERICAN BEE-KEEPER, Fort Pierce, Florida. We should also be pleased to receive pictures of every officer of every bee-keepers' association in the Empire State for publication in these columns.

Owing to the hundreds of new readers who have recently joined our circle and who are not conversant with our past efforts in behalf of bee-keepers' interests, we desire to repeat some things often said before: The American Bee-keeper is a sort of co-operative institution, the objects of which are pleasure and profit; and every subscriber is invited to become an active member. The general dissemination of bee-keeping knowledge can be accomplished only through the free exchange of ideas between those interested in the subject; and The Bee-keeper acts as the medium in the accomplishment of this purpose. We should be pleased to hear from as many of our new readers as may find it convenient to write us. If you are an amateur or beginner, perhaps you will feel more at home around our "Amateur Table," which appears in each number. Please state when writing, whether you desire to have your letter appear in this department or not. But write something which you think will be of interest to others. All are invited.

Most commission houses which handle honey have by their business methods acquired a reputation among the experienced shippers of the fraternity. Some have acquired a reputation which will not tend to increase their yearly business in our products. Others deserve, and should have the confidence of honey producers. Nearly every year some inexperienced shipper falls a victim to the disagreeable methods and treatment of unbusiness-like or dishonest dealers. There are many of those who quote regularly in the bee-papers, with whom we are unacquainted; but be it known, we know some of them too well; and if any reader of The Bee-keeper shall request our opinion of any of those with whom we have had business dealings, it will be gladly given. The publishers of this journal pay us for keeping an eye upon the interests of its patrons; and we believe that our experience along this line may be of service to some of those whom we trust will have a crop of honey to market this year.

A FORECAST.

One of the most progressive, scientific and well-known bee-keepers of the northern states, under date of March 9, 1901, wrote us as follows: "The Bee-keeper for March is just at hand; and permit me to congratulate you on the matter it contains. You are forcing it to the front with great energy. If you keep on at the rate at which you are going, it will soon excel anything in the field."

There is no use of concealing the fact that such letters are very encouraging; and we can assure our readers that our rate of speed will not only be maintained but increased, just as fast as possible. This journal does not belong to the class which holds that the field of apicultural journalism is already full and overcrowded. There is yet lots of room for improvement; and whether The Bee-keeper shall ever attain to its coveted position in the field or not, is uncertain; but we hope yet to see a strictly first-class magazine devoted exclusively to bee-keeping.

TONGUE-REACH.

Perhaps there is not a bee-keeper in the whole land who has not noted a great difference in the nectar-gathering capacity of certain colonies in his yard. "Good workers" is the word usually employed to designate the characteristics of any particular colony which has been successful in storing a large quantity of honey. Other colonies which, though populous, have given little or no surplus while others were gathering and storing supers full of honey, have been called "lazy."

Some time since the theory was advanced that this superiority in certain instances was due to the advantage of a longer tongue which was possessed by the "good honey gatherers," while the "lazy" colonies simply did not have the "tools" with which to extract the nectar from the depths of long corolla tubes. It appears that recent investigations tend to bear out this theory; and if such should prove to be the case, the only solution of the "lazy bee" problem will be to breed continuously from the stock possessing the greatest tongue-reach.

Perhaps Mr. E. R. Root, of *Gleanings in Bee Culture*, has done more tongue measuring than any other person up to the present time. His observations and experiments have been quite interesting; and it really seems desirable that the matter should be pursued until it is either established as a truth or else disproven. If length of tongue has to do with the quantity of surplus honey secured, it is a matter of vital importance that we should know it. We have had some interesting correspondence with Mr. Root relating to the matter, and as a result have equipped ourselves for the measuring of tongues according to the plan followed by himself. In arriving at a really satisfactory result, it appears that an uniform method of measuring should be adopted by all investigators; and we believe that employed by Mr. Root to be the most simple and practical of the methods suggested.

To procure accurate measurements requires great care, and it is rather doubtful if satisfactory results might be obtained by widely different methods, and in the hands of those unskilled in the work. We have already found that some practice will be necessary before we shall feel inclined to place great confidence in our own work. We have reached the reliable stage we shall acquaint our readers with the result of the experiments now going on. Meanwhile, if any of our readers have a superior honey gathering colony, or one which, though populous, does not gather an equal quantity of honey with the others, keep an eye upon them and we shall be glad to lay the respective tongues upon the rule.

CONTROLLING FERTILIZATION.

Mating queens in confinement is a very old subject which has been given a long rest in the journals and conventions of the land. The *Bee-keepers' Review* is responsible for a recent revival of the matter, which is discussed from a new point of view, in a most interesting way, by J. S. Davitte as well as by the editor. Mr. Davitte, it seems, has been conducting some very successful experiments along this line. His method is to have a tent thirty feet high and thirty feet in diameter, covered with mosquito netting. The hives from which the drones and queens are to fly have an opening or entrance at the back which leads directly into the tent. The front entrance is fitted with a piece of perforated zinc, thus preventing the queens and drones from escaping to the open air; although the working force continues freely to forage in the natural fields.

In order that the workers might become accustomed to fly from the entrance leading to the open fields, the rear or tent entrance was kept closed for about a week; and neither drones nor queens were permitted to fly at all, excepting between the hours of 11 a. m. and 1:30 p. m. Mr. Davitte is convinced that the secret of mating in confinement consists in having the drones educated to the use of the tent; and this is easily accomplished by never permitting them to fly in the open air. As a result of their having never flown anywhere except in the tent, they know no other world than its confines, and appear to enjoy themselves within its limits as well as though their flight was unrestricted.

The nuclei from which the young queens were to fly were placed in the same position as the drone colnies; but the queens were not turned into the tent until the drones were reconciled and flying freely.

As a further precaution against the workers entering the tent, the tent entrances were kept shaded while open.

Mr. Davitte says he has reared one hundred queens in one season and had them all mated in this way.

This is, to say the least, a very interesting development, and it may lead to the perfecting of a method which will, in the future, enable those who are surrounded with undesirable stock, to control the mating of their queens—a thing heretofore considered impossible. It appears that the chief point of importance to its successful practice would be the bringing about of a perfectly reconciled condition of the drones, within the tent—a point, by the way, which is almost too delicate for the conception and handling of the novice. It is akin to the work of conditioning a colony for queen-rearing—one of those delicate matters very keenly appreciated by the experienced, yet expressed with great difficulty. A thorough acquaintance with bees will beget an appreciative understanding, where no possible amount of study can do so.

SPRAYING AGAIN.

So much has been said (and it has been said so often) upon this subject that it would seem quite unnecessary to pursue the matter farther. The letters and newspaper clippings received at this office, however, indicate that it is still a live subject, and that bee-keepers are determined to follow the question closely, until the bee-poisoners shall have learned to consult their own interests by a general or entire discontinuance of the practice.

As a "clincher," we have pleasure in reproducing the following extracts from *Green's Fruit Grower*, sent to us by President W. F. Marks, of the New York State Association of Bee-keepers' Societies. If any of our readers have fruit-growing neighbors who are still inclined to spray trees while in bloom, it might not be amiss to call their attention to this summary of revealed facts:

SHALL WE SPRAY TREES WHEN IN BLOSSOM?

In the coming time to insure success in fruit-growing the fruit-grower will be obliged to manage his orchard in accord with scientific principles. Perhaps farmers with little scientific knowledge will be able to manage an acre or two so as to produce all the fruit required for home consumption, but to grow fruit for market so as to be able to compete with those who grow fine, first-class fruit, he will be obliged to know enough of entomology to know what poisons to use to destroy the different species of insects and also when to apply those poisons to effect greatest results and, at the same time do the least harm to the trees or fruits. He will also need to know enough of fungology to be able to combat the different kinds with remedies, when those remedies will be most effectual. As it happens, most of the insect enemies come into active life with the first warm days of spring. A few warm days will hatch eggs in which the insects have passed the winter, or cause the larva, which have spent the winter in pupæ to leave their winter abodes and commence crawling over the tree or plant on which they have wintered, in search of the tender leaves which form their most appropriate food. The instinct of the maternal parent guides her to deposit her eggs in close proximity to suitable food for the young larva. Hence we learn that some of the most formidable insect enemies of the fruit culturist—the bud-worm, the case-bearer, the apple leaf-folder, the leaf-crumpler and several others, a little less destructive, are ready to enter the opening bud and commence eating before it is fully expanded, and those very formidable enemies, the tent caterpillar and the canker worm soon follow. There is no period in the life of those insects when they can be so easily destroyed by arsenical poisons, as when they first begin to feed. A weak mixture of arsenic will then destroy them while a much stronger mixture may fail to do so when they have attained a larger growth. It is evident, then, that apple trees should be sprayed with Paris green, or other forms of arsenic, when the buds first begin to swell, certainly when the leaves begin to unfold. As many kinds of fungi commence to grow with the first warm days of spring, Bordeaux mixture can be profitably mixed with the arsenical poison.

A few years ago, from a mistaken idea of the time when the codling-moth first lays her eggs, orchardists, fearful that if they waited until the apple-blossoms fell, it would be too late to destroy the larva, sprayed their trees while in blossom and bee-keepers complained that their bees were poisoned, and prevailed upon our Legislature to pass a law forbidding spraying while trees are in blossom. Many orchardists felt greatly aggrieved by this law, asserting that they were forbidden to spray just when spraying would do the most good, and they must sacrifice their apple-crop upon their own land, for the benefit of the bee-keeper, who had no claim upon their orchard as a bee-pasture. More recently, a careful observation of the habits of the codling-moth led to the discovery that she does not deposit her eggs immediately after the blossom falls, but several days later, and that, instead of placing them in the calyx or blossom end of the fruit, as had always been supposed, she lays them upon the side of the young apple, glueing them to the rind, and that when the egg hatches the larva crawls over the fruit in search of a place of concealment which they generally find in the partially closed calyx. This seems to show that there is no occasion for haste in spraying immediately after the blossoms fall, but that any time before the calyx closes will answer when the little cup may be filled with the poisoned water ready to give the worm an inhospitable welcome to its first meal.

Still more recent investigations show that it is not only not necessary to spray for the codling-worm when the trees are in blossom, but that it is a positive detriment to the fruit to spray at such a time. At the late meeting of the Western New York Horticultural Society, Prof. L. A. Beach, of the New York State Experiment Station at Geneva, detailed some experiments he had made in spraying apple trees, when in bloom, with Paris green. He experimented in two orchards in Ontario County and two in Niagara County. Had sprayed some trees in all of the orchards and left others contiguous without spraying. All the trees were very full of blossoms. On the trees sprayed but few apples set, a very large proportion of the blossoms falling, apparently before the fruit set in, while on those not sprayed a very large crop of fruit grew. To make the test still more conclusive, he selected trees very full of blossoms alike on both sides, and sprayed one side of each tree, leaving the other side unsprayed. The result was, on those sides sprayed the fruit set very sparsely, while on the opposite side, not sprayed, a heavy burden of fruit grew. Prof. Beach came to the conclusion that where you fairly hit an apple-blossom with Paris green strong enough to kill insects, you will pretty certainly kill the blossom. The organs of reproduction in fruit blossoms, when fully exposed, are very tender and easily killed. A slight frost or a long, cold rain will often leave an orchard, covered with blossoms, with little or no fruit. If these experiments shall be confirmed we shall confess that the Legislature "builded better than it knew:" that while protecting the lives of the bees it prevented fruit-growers from destroying their fruit.

* * *

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* * *

TYPEWRITERS AND CAMERAS.

If any reader of THE BEE-KEEPER is contemplating the purchase of a photographic outfit or a writing machine, I should be pleased to have him correspond with me before placing an order for either. I am in a position to offer new instruments of the highest grade, direct from the manufacturers, at the lowest possible prices. Respectfully,
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March 4, 1901.

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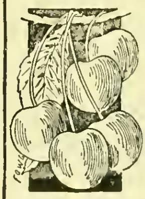

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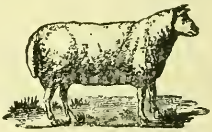

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ON SEPTEMBER 1st last we announced that we finally had a red-clover queen fully equal to the one we had years ago. The colony of this queen has given one of the most remarkable showings on red clover of any bees we have ever had. The queen in question is an imported one, and therefore of the genuine pure leather-colored Italian stock. We sent out daughters from her all the season. But we did not discover her value until the clover season, second growth, came on, and then her colony so outdistanced all the other 450 that she attracted attention at once.

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Since the notice appeared regarding this queen we have hardly been able to supply all of the queens that were wanted from this stock. Many daughters of this queen we sent out before we knew her value, and it now transpires that some of the finest bees in the land are from queens we sent out early. We are now booking orders for the coming season, and make the following offer, but no queens will be furnished except to those who subscribe for GLEANINGS, and only one with each year's subscription. All arrearages must be paid to the end of this year. Gleanings for 1901 and one untested red-clover queen, $2.00; Gleanings one year and a tested red-clover queen, $4.00; a select tested red-clover queen and Gleanings one year for $6.00. We will begin mailing these queens in June, 1901. Orders are already being entered, and the same will be filled in rotation. Do not neglect to improve this opportunity and get some choice stock, and send your order early so you may get the queen correspondingly early in the season. We are using every precaution to winter this queen safely, but reserve the right in case of her loss this winter to substitute from other select tested stock of this strain which we are holding in reserve, or to give the subscriber the benefit of any of our other clubbing offers if desired.

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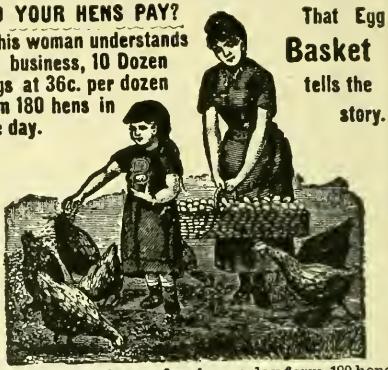

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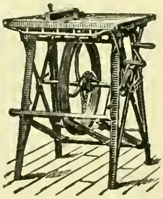

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MAY

1901

Vol. XI No. 5

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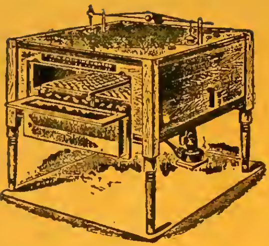

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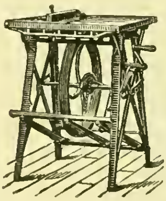

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MR. W. S. HART.

[See page 91.]

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI MAY, 1901 No. 5

EXTRACTED HONEY.

Advantages of Artificial Curing Explained —An Expedient System of Treatment Described—A Very Interesting Article.

BY W. S. HART

As is well known by the older readers of the bee-journals who have read my writings for the past twenty-five years, I am a thorough believer in the curing of extracted honey after it is taken from the hive, both as a means of securing a more uniformly high-grade article and as a means of largely increasing the crop. With a view to the further development of means to this end through exciting an interest in the active minds of the younger generation of apiarists, I here give a brief statement of my processes, their results and my conclusions.

For some years I exposed the honey to the full heat of the sun by placing it in large tanks, painted black, covered with fine tinned wire netting and placed on trucks that ran on an iron track, leading outside the honey-house onto a long platform. These tanks were run out hot days and housed at night, and served their purpose fairly well. They had drawbacks, however, such as requiring a close watch on the weather and the necessity of being at hand to trundle them under cover in case of rain; their limited capacity: their liability to overflow when moved etc. To obviate these troubles I built a room adjoining the honey-house, covered it with glass and put in an evaporator made of tin, in which the honey ran slowly from side to side in a thin stream four inches wide, a distance of about 110 feet, under the full heat of the summer sun. My extracting is done in the second story of the honey-house. The faucet of the extractor is over one end of a tank of about thirteen hundred pounds' capacity, into which the honey is strained. Through a faucet in the bottom of this tank the honey is allowed to run to the evaporator in any sized stream desired. Beneath the evaporator is a like tank on trucks, resting on tracks so that it can be rolled to where the honey can be run from a faucet at the bottom of the tank directly into barrels or cans, as desired. This arrangement has a far greater capacity for handling honey rapidly in quantities than the other and its workings have proven to be fairly satisfactory during my experience of the past sixteen years of its use. The least I can say of it is that it is the best arrangement that I have yet seen and has, I am sure, brought me some hundreds of dollars through enabling me to safely take up my honey and extract it when one-third capped, thereby saving much of the labor of extracting as well as the expense of the bees clustering for many hours in the hive at the height of the honey-flow to secrete wax that requires from twelve to twenty times more of honey in weight than wax secreted, to be eaten by the bees, for its production, and at the same time get a more thoroughly cured product than is usually obtained by leaving it in the hive until full.

Take notice in a good honey-flow and see if it does not require about the same time to put the last half pound of honey in a comb and cap it that it does to gather and store the other four, five or more pounds that a Langstroth comb will hold hung two inches from center to center. By the method described I am given three different processes of curing and two of selection and clarifying. Bear in mind that honey in bulk arranges itself according to its density: The heaviest goes to the bottom while the lighter and thinner goes to the top, and with it all particles of wax or other light foreign substances.

First. By drawing only from the bottom of the tank I get the heaviest honey while the light remains in the tank to cure, or until the end of the flow, when there is plenty of time to run it slowly through the evaporator and put it in the condition desired.

Second. That drawn off runs through the evaporator and is there further relieved of its water; and.

Third. The heaviest of this is barrelled off from the bottom of the lower tank while the lighter, at the top, gets the benefit of the heat of the room and the current of air constantly passing over it.

It if claimed by some that honey cannot be cured outside the hive so that it will be equal in body, color and flavor to that left for the bees to finish. This is surely a mistake, as any one can easily learn by a thorough test of the process that I practice and advocate. Some kinds of honey, both North and South, have a tendency to ferment and often do so even when left in the hive after being fully capped over.

It is not very unusual to find combs in the hive, in the fall, covered with great blisters formed by gas from fermenting honey having pushed up the capping over spots an inch or more square. I have seen crops of forty, fifty or more barrels with a wire nail driven into each barrel; this nail to be withdrawn each day to let the gas escape and then replaced. These were in apiaries where the bees were depended upon to cure the honey, while in my own honey-room not even a puff could be heard upon the removal of a bung from any of the hundred barrels that it contained.

Fermented honey may be best for bakers and manufacturers who require the raw acid for its chemical action, but such buyers purchase in large quantities at low figures. For high-priced table honey, smoothness and richness of flavor is desired, and this is only found in heavy, sound honey.

Besides these observations of the comparative action of honies I have many times tested with a hydrometer my own honey, artificially cured, and that cured by the bees in other apiaries, and never yet found mine to register lighter than the best of the latter.

As to color, I have left white honey in my evaporator until it would wind up on a spoon to the size of a goose-egg, and still it was white, with hardly a trace of cloudiness to show its greater density. If honey is dark the color may deepen a little, but not sufficiently to change its price or classification. It takes a high temperature to materially darken the color of honey. In the evaporator it never gets so hot that you cannot bear a finger in it for several seconds. A great deal of theory and many wild statements, nearly all based on theory, have found their way into print concerning the impossibility of securing that perfection of flavor by artificial means that is given to honey by the bees. A single practical test will ofttimes show the fallacy of volumes of theories, and so it is here. I have never found a person who could, with any degree of certainty, tell which of two samples of well cured honey was cured by bees. I grant that many think they can do this until they try it, but repeated trials will embarrass the best of them. I cannot learn that there is anything in this curing process, after the honey is once stored, to result in smoothness or fine flavor except the simple elimination of surplus water before it starts fermentation. Let fermented honey partly granulate, drain out the thin liquid part, then melt the rest, and the smoothness and flavor of new honey is to a great extent restored.

I have yet to learn that chemical analysis shows a difference in honies equally cured by the two methods, and this it should do if the bees add to or take from it any property or substance other than water.

Just what increase to expect from artificial curing is hard to state, but, in line of evidence, my crops for the past twenty-five years as compared with those of other skillful bee-keepers of this neighborhood, working under like conditions, may give some hint, though other matters necessarily enter into the calculation. Honey may be artificially cured in several ways. When the sun's heat is not sufficient, hot water under the evaporator is a fine substitute, or several sheets of tin arranged to slant alternately each way, one above another, and so arranged that the honey flows over them in a thin film and falls from each to the one beneath, the whole apparatus being located in a good current of dry air, may, perhaps, be made fully effective.

I am of the impression that a tank ten or twelve feet deep—the deeper the better—would serve a good purpose in securing well-cured, clean honey where it is left longer in the hive. There is almost always some light honey at extracting time, this would come to the top and, under a cover of glass and wire net, would rapidly cure, after being skimmed, if the tank was built where the sun could reach it. As soon as your honey is cured, cover it, air tight.

Hawks Park, Fla., Apr. 1, 1901.

INTRODUCING QUEENS.

Some Interesting Experiments and Theories Relating to the Fasting Method.

BY ARTHUR C. MILLER.

SOMEBODY—never mind who, for I have forgotten—who has a faculty for saying clever things, once wrote: "What's the use of knowing things when so much we know isn't so?" And if there is any remark that fits the general knowledge about bees better than that, I have yet to hear of it. They do most always go contrariwise. Make beautiful experiments, obtain wonderful results, write glowing descriptions, then try to do them over again and you will wish you never knew how to write.

This very uncertainty is what gives apiculture such a charm—yes, even to those who are in it only for dollars and cents, for it keeps them wide awake. As there is never an effect without a cause, so is there always a reason for the seeming contrariness of the bees. The conditions, though apparently alike, are not the same; and of no part of apiculture is this more true than of queen introducing. To-day we actually know almost nothing of the true cause of success or failure in this branch of the pursuit. A lot of queens are put in and all are accepted. Why? Another lot are put in in the same way, and most all are lost. Why? We don't know. Few of us have the patience or time to search for the cause, and so we go blindly on from season to season, wasting hundreds of dollars just for want of knowledge of the "why." Theories are of value only as they make a basis for experiments until their truth or falsity is established.

Here is a theory on queen-introducing which I have partly tested, but have not yet proved beyond doubt: The queen's attitude governs her reception. If she goes to them as a suppliant, humble and hungry, she is accepted without question; if she goes forth with regal mein, or hurried and fearful, there is a tragedy. Every season I introduce more or less queens and always try the new ways as they are brought out, but I have yet to find a simple one that is more uniformly successful than that of Mr. Samuel Simmins of England, called by him the fasting method. I have used it for many years; it fits my theory and my theory fits it, beautifully. Briefly it is: Confine the queen alone and without food for thirty minutes, meantime keeping her warm, and then let her run in under the mat, preceded and followed by a puff of smoke. This is done at night. His instructions are to always use a fresh receptacle for each queen, or use a metal cage and scald it after each use. On the theory that the bees detect the foreign odor of an alien queen, this should not be necessary; because the mixed odors would form a blend approaching the general odor of all colonies. I believe the true reason for the necessity of deodorizing the cage is that otherwise, the queen detecting the seeming presence or nearness of a rival, is angered or at least is put on the defensive so that when liberated she enters the colony in a spirit of hostility which is greater even than her hunger.

Let us analyze this system. The bees where the queen is to enter and who were put on the defensive by the opening of the hive, are frightened and driven back a little by the smoke. The queen, who is too hungry to be much disturbed by this, walks quietly and directly in just as if she belonged there, puts out her tongue for food, is given it, and presto! she is at home. As a matter of fact the queen gets very little of the smoke, for only a puff is used and the rapid fanning of the bees drives it out quickly.

You may ask how I reconcile my theory with cases of colonies that have killed many queens, no matter by what other plan they were put in. I venture to assert that by her delicate sense organs the queen detects the general disturbed and hostile state of the bees and it causes fear on her part; the rest follows in natural sequence. In almost, if not quite all, animal creation, hunger overcomes timidity, and we know that by this fasting method queens can be readily introduced to the most obstinate colonies. We also know that the queen is highly developed and of acute nervous sensitiveness. Last season was particularly unfavorable for all apicultural work—heat, drought, with high winds and very little honey at any time, combined to produce conditions which would try the merits of any system, and under these conditions the "fasting method" was uniformly successful, while many of the other and more commonly advised plans were not.

One clause attached to almost all rules for indroducing queens is this: "Do not disturb the colony for two or more days after the queen is put in." Why? Because the queen will disappear. Why? Frankly, I don't know. I believe, however, that it is because the queen, not having got well to laying, and not feeling at home, gets frightened—the bees do the rest. When queens are introduced by the "fasting method" I find it is safe to handle the colonies sooner than when they are put in by most any other plan.

To those who read my article in the April Bee-keeper on "Shipping Queens" it may seem that the fasting necessary under this system would prove harmful to the queens. To those which have been confined to a shipping cage for one or more days, it could add no further injury, and to those taken fresh from a colony, the period of fasting is too short to be hurtful.

By the way, be sure and clip all your queens. It keeps them from going off to enrich some other fellow, avoids the necessity of hard climbing after swarms; but above all, it is the nicest kind of a way to keep track of the age of the queens. A different cut for different years, and at a glance you know the facts; any supersedure is instantly detected and a lost written record makes no trouble.

Now, do not grab at this introducing method as infallible, and if it fails blame me: for bees go contrariwise most always, and the circumstances of locality *et cetera*, alter cases. As for my theory, you may pepper it with experiments just as I intend to continue to do, and I believe it will prove to be correct; but if later I lay it quietly away, don't say things to me.

Providence, R. I., April, 1901.

[How about virgin queens, Mr. Miller? Does your own or Mr. Simmins' experiments extend to them? Have you ever tried the fasting method upon either laying or virgin queens introduced immediately upon the removal of the mother? Why "at night?" Have practical tests actually proven the nocturnal shades to be an advantage? Some of our own experience has left a very decided conviction that at night may not be the best time for "running in queens." The foregoing questions are propounded purely with a view to bringing out some real and positive information upon this subject. We shall be pleased to hear farther from Mr. Miller and others in regard to the same matter.—EDITOR.]

* * *

"A thorough study of the marvelous economy of the honey-bee must from its very nature bring delight and admiration."

STRENGTH OF COLONIES.

A Consideration of Various Methods in Obtaining Uniformity.

BY G. C. GREINER.

THE importance of strong colonies is a matter so well understood by all the bee-keeping fraternity that it hardly needs any discussion. The point on which bee-keepers vary more or less in their views is the ways and means to have and make them strong. For instance, Mr. Doolittle advises to change combs to bring them up to the required standard of populousness; other bee-keepers exchange colonies to strengthen weak ones, and still others unite to accomplish their purpose.

In looking over any apiary in the spring, no matter where it is located, we find three grades or classes of colonies. First, those that we know, under ordinary circumstances, will winter or spring through; second, those that we know will survive but a short time; and third, a class which we may call "doubtful," our best judgment leaving us in the dark as to what their final destiny may be. The first kind are the only ones from which we can expect any paying returns; and even among those may be some that will fail to come up to our expectations. But what shall we do with the others? They are no good as they are. The only way to deal with them and receive any benefit at all is to unite them—two and two or three and three, according to their remaining strength, and if it takes more to make one respectable colony, it is better for their own as well as for their owner's benefit to put them together. We are not always sure of success in performing operations of this kind; sometimes these so-treated fragments will do well, build up rapidly and yield a fair amount of surplus honey; at other times they will not; conditions seem to be unfavorable. But at all hazards we give them, by this uniting process, a chance for their existence, which they would not have if left to themselves.

Any colony from which we may reasonably expect, under favorable circumstances, a fair yield of surplus honey, must be crowded with bees and all the combs filled with brood in all stages, and capped honey. To this we may add that the stock must be of some good, honey-gathering strain. Unfortunately, our colonies, even if wintered well, do not all come up to these requirements by the time our honey-flow opens, especially if it is an early one, as is the case from white clover. No matter how much care and patience the bee-keeper and queen-breeder may bestow upon the production of his stock, there is and always will be a difference in the general business propensities of different queens and their offspring. Under like conditions we find some queens more prolific than others, consequently their hives will be overflowing with bees when others are only moderately populous and some even below the average of populousness. Thus we find again, at or just before the beginning of the honey-flow, three classes of colonies: First, those that we know (or at least expect) will work in supers; second, those that we know will not; and third, the doubtful ones. To supply the first with properly prepared supers—if possible, with a row or two of bait-sections—and await results, is about all we can do. The same may be the case with the latter kind, if we prefer to run the risk of an extra good honey-season, such as we have now and then. We have had such abundant flows from basswood that, to use a common phrase, most "any old thing" in the shape of a colony could be induced to work in sections. It is the second class that needs our attention unless we can manage in some way to bring them up to the above mentioned requirements, they will be of very little benefit for that season. By uniting two or more, the same as we did in the spring, we can succeed in changing their condition to nearly this standard, whereby a positive failure may be turned into an almost positive gain.

When preparing our bees for winter, we meet the same feature; some of our colonies are strong—in fine condition to go into winter quarters, while others are not what they should be. We know from experience that strong colonies only can be wintered with any degree of certainty, especially if wintered out of doors. It is therefore of greater importance to have our colonies strong at this time than at any other of the year. On account of the advanced season, there is no practical way of building them up, and here, again, "uniting" comes to our rescue. If we have a good bee-cellar at our disposal, quite weak colonies can be safely wintered; but unless we have an especial object in wintering such colonies, there is no gain in doing so. Under the most favorable conditions they will be weak in the spring, liable to spring-dwindling; and the old saying: "One strong colony is better than a dozen weak ones," cannot be too strongly emphasized.

LaSalle, N.Y., March, 1901.

* * *

"The Orientals called the honey-bee 'Deborah; She that speaketh.'"

UNPAINTED HIVES.

Being an Analysis of Mr. Miller's Recent Article Upon the Subject.

BY G. M. DOOLITTLE.

UNDER the above heading, in the January AMERICAN BEE-KEEPER, I find an article by my much-respected brother bee-keeper, Arthur C. Miller, in which he takes issue with me on the subject of painted hives. I am quite loth to notice this matter again, having written so largely on it in the past, and would not do so were it not that I think much help can be brought to the bee fraternity by bringing out a few facts which Bro. Miller's article does not touch.

Brother Miller lives in the City of Providence, where riches, trusts and combines hold forth to quite a large extent, so that the people there can luxuriate in paint and rubber coats; and therefore he conceives the idea that those who cannot thus luxuriate must go it slip-shod. This idea, when tested amongst the masses, is a false one, for I have very often found that where poverty pinches the closest, the most tidiness and neatness of appearance is manifest, many an unpainted hive and floor looking more neat and tasty than those on which paint and money was used lavishly. No, no, Brother Miller, do not insinuate that poverty of paint brings about shabbiness, disorder and slovenly appearances, as a rule, for such is not the case everywhere, outside of the city of Providence, R. I.

Next comes the economy part of "a thin coat of paint each fall being cheaper than a new hive every little while." By turning to Falconer's catalogue for 1901, I find that an eight-frame hive body costs twenty-eight cents and a cover for the same twenty cents, that making forty-eight cents for both. I have unpainted hives in my yard that have been in constant use for twenty years, and from all appearances they are good for twenty years more. But not to carry it beyond the present, we will say that forty-eight cents' worth of unpainted hive is good for twenty years. A gallon of paint is said to cover two hundred square feet of surface with two coats; but it rarely does it with me. That gallon of paint costs anywhere from $1.60 to $2.00, according to quality. Call it $1.80. It takes about thirty hives to give two hundred square feet of surface, and that gives a cost for paint of six cents for two coats or three cents for one, per hive. So the cost of paint alone for the first two coats and one coat each fall for nineteen more years, would amount to sixty-three cents. Then when I have hired hives painted I had to pay fifteen cents an hour for the labor, and the man painted six hives an hour, or at the cost of 2½ cents per hive. Twenty-one times that equals fifty-two cents, and that added to the sixty-three makes $1.15 as as the cost of painting as against forty-eight cents' worth of hive. Did Brother Miller stop to figure when he gave us that economy part?

Next, we come to the economy part as regards "stores and vital force of the bees." which is the real point of the matter which is between us—or at least should be. It was just at this point that I broke away from painted hives. With painted hives I found the combs all covered with frost and ice in winter, after a spell of zero weather; often reaching clear down to the cluster of bees, while, with the unpainted hives, very little frost was found except at the extreme corners of the hives. Then when a thaw came, the frost and ice would melt in the painted hives and run down over the bees and combs, often wetting them so that when a freeze came suddenly on, the result was the death of the colony, or the vital force of the bees very greatly diminished, so that when spring came I had mouldy combs and spring dwindling to an extent which was very nearly ruinous; while the bees in the unpainted hives came out with clean combs, bright bees and strong colonies, and early spring results with cellar-wintered colonies were little better.

And Brother Miller would try to prove me wrong by having me put on a rubber coat over a dry over coat, under coat, vest, shirt and an under shirt. And right here is brought out that Brother Miller has set up a "man of straw" and proceeded to knock it down, by not carefully reading what Doolittle has written during the past. If Brother Miller will take off all of his clothing but his shirt, drawers and socks, and then go out into the rain, snow and zero weather with his rubber coat on (yes, and he can leave it open at the bottom so that he may have plenty of bottom ventilation) I do not think that he will plead any longer for painted hives, the same being only single walled, made of seven-eighths inch lumber. In my past writings I have made it plain that it was only single-walled hives that I was opposed to painting, and have always advocated painting chaff hives or those with double walls; and this for two reasons: First, that the chaff walls or dead air space would allow the moisture from the bees to pass off and out; and that, second, the chaff hive being so much more costly, would perhaps pay in the end for painting, on account of its longer lasting. The last part of Bro. Miller's article shows that he uses only double-walled hives, and thus has had no experience with such hives as I have recommended left unpainted, so all of his arguments count for naught. Then his "generally bees get a chance to fly once or twice each month" shows that he has no experience in a climate where winter holds sway for from four to five months, during which bees rarely have a chance to fly even once. Another thing, what he says about when bees "have a box fixed to their liking, it will be as tight as a tin can," shows that he is not a close observer, or else propolis varnish is very different in his state than it is here. Before the first freezing weather in the fall, propolis of the same season's gathering will be as he explains; but with the freezing of winter and the moisture coming in contact with it, the bright, shiny surface of this varnish becomes dull and full of very fine cracks and holes so that both moisture and air pass through it very much as does the air and moisture from the human body on a zero night, when we are snugly tucked up in our wollen blankets and comforters.

One other item and I will bring this lengthy article to a close; for this has much to do with the lasting qualities of an unpainted hive. Nearly all bee-keepers here at the North now winter all single-walled hives in the cellar, so that the winter rains and storms do not touch the hives. Then all practical, far-seeing bee-keepers use a shade-board in the summer to shield the hive from the direct rays of the sun, so that the heat shall not drive the bees from the sections and brood-combs on hot days, to the outside of the hive. And, to be as it should be, this shade-board should be impervious to water. Those I use are covered with tin. When housed during winter and covered by a proper shade-board during the time they are out door, such a thing as the soaked hive Brother Miller alludes to, is out of the question. Now, understanding things in their true light, I am willing to allow each the privilege of doing as they think best regarding this paint question, when using single-walled hives.

Borodino, N. Y., March, 1901.

* * *

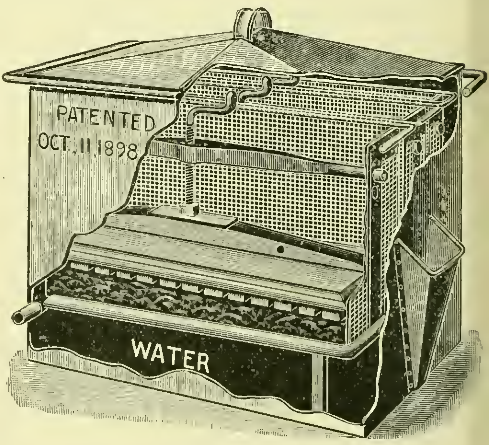
"Neglect is the rock on which many bee-keepers have wrecked their success."

AN UP-TO-DATE WAX EXTRACTOR.

Something of the Construction and Use of the Machine which Represents the Highest Achievements in the Science of Rendering Beeswax.

BY C. G. FERRIS.

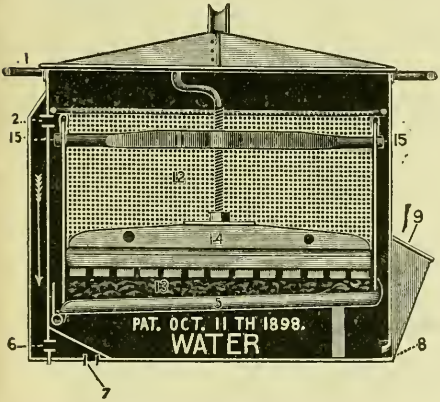
LACK of space prevents our showing a large half-tone representing six cords of combs cut from the frames, piled up and then photographed, showing the result of what is known as black-brood, pickled-brood or foul-brood becoming mixed in among the lot. The combs have been accumulating for the past twenty-five years, and have been used in producing extracted honey exclusively. To eradicate this disease and transform this huge pile of combs into choice wax, as is shown in No. 7, I call your attention to my large three-basket Combination Steam Wax-extractor, as shown in No. 2. This machine is made to take one or more long, narrow baskets (see No. 4) on the same princicle as frames that we use in our hives. By being made in this manner the frames of comb can be put directly into the basket in clusters, or handfuls, of six each, without breaking or otherwise changing them. Another advantage of this construction is that the live steam has a better chance to penetrate than if made to hold eight or ten. A



No. 2.—Three-basket Extractor.

basket holding four frames of comb on this principle would be rendered quicker than the one holding eight or six; and the advantage would be in the lighter basket, taking into consideration the handling—lifting in and out of extractor. The first basket in three-basket extractor (No. 2) has been cut away to show the follower and press in position. After using until the refuse becomes objectionable, or after we have put in about sixty ordinary combs, put on the follower as shown in No. 3 at 14, adjust the screw and holder, at 11, and give the pressure desired. On a test of sixty-four combs, badly worm-eaten and heavy with pollen, I secured the following result:

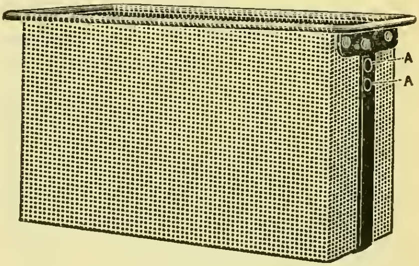
Carefully steamed out nine pounds of wax. Pressure applied and pressed out under steam, eight pounds, fourteen ounces. Any one can do the same under the same conditions. Follower, screw and bar can easily be released and are removed when combs are being rendered. Two motions place them ready for use and the same remove them from position when not needed. Four baskets should be used with this machine; as, while one or more are taken to be cleaned, the extra one takes its place, so the rendering can be carried on indefinitely.



No. 3.—Longitudinal.

This extractor can also be used to great advantage in pressing the honey out of cappings. As they accumulate they are to be put into the baskets and when full pressure is applied, forcing the honey rapidly out without any discoloration whatever.

Longitudinal section, No. 3, shows the machine cut through the center, apparently. Fig. 1 shows the extension handles for handling; Figs. 2, 6 and 7, steam and odor escape to the stove: at 8 and 9, water supplied to tank; 5, drip-pan; 13, refuse; 14, follower; 11, iron bar and screw; 12, basket; 15, release of bar from basket.

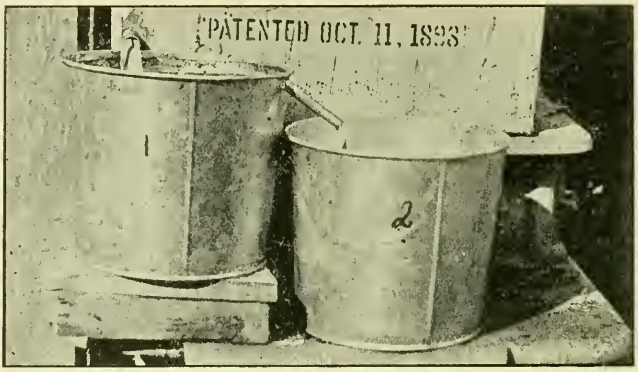


No. 4.—Basket.

The baskets are made in a most substantial way of extra heavy galvanized wire cloth, all in one piece, united and soldered to heavy galvanized band-iron at the ends. All are interchangeable and self-spacing—as much so as the frames in our hives. AA shows the holes in one end for receiving press: see Longitudinal, 11.

The wax cakes as they appear after coming from the extractor are all sizes and all shapes, due largely to the ample water supply used in rendering. We now scrape all sediment from the bottom of the cakes and clean the tin buckets by placing them in the oven of the stove long enough to get them piping hot, then with a clean piece of burlap they are easily wiped clean. This is important, as the wax will not be clean should the buckets be dirty.

By a very simple contrivance, as here shown in No. 6, and more fully illustrated in No. 8, we take these irregular cakes of wax above referred to, and.



No. 6.—Wax Refiner Working.

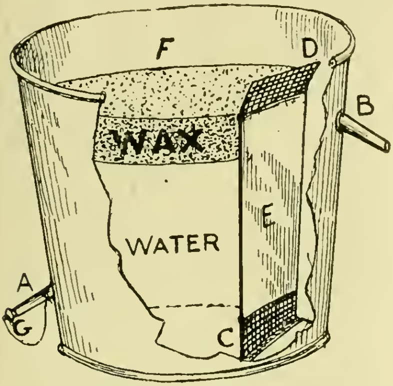
after cleaning out the baskets we again prepare as for rendering wax. Arrange the refiner, as shown in No. 1. and clean buckets so the wax flows through refiner to bucket, 2. When this bucket is full it should be taken away and another put in its place. Wax in irregular cakes should be put direct into the baskets and run rapidly into buckets of uniform shape, as shown in No. 6, Fig. 2. Cooling bodies contract, so after filling the buckets full evenly do not try to empty them of wax until they cool sufficiently to almost drop out, as they will after a time. The results are shown in No. 7 in regular size cakes of wax ready for crating.

While rendering this pile of combs, many of them were white drone-combs and new foundation that never had been

Original
No. 3

No. 7.—Wax Ready for Crating.

brooded in. Those were put to one side with the intention of having a choice quality of wax made separately. When all had been run through the wax refiner I could find no difference between the two lots. This is sufficient to show its value in cleansing wax. It is also safer in these days of different kinds of diseased brood-combs to give our wax a double dose of live steam.



NO. 8.—REFINER.

South Columbia, N.Y.

* * *

"Every apiarist should take and read at least one bee-journal."

Bee Stings and Rheumatism.

Sec. Russell, of the Worcester County (Mass.) Bee-keepers' Association, sends the following newspaper clipping, with reference to which he says: "Dr. Mackie has seventy-two colonies, is a practicing physician and horticulturist. In May he expects to go abroad to visit apiaries etc.:"

"The sting of the bee is not a cure for rheumatism." This was the positive statement made yesterday afternoon by Dr. George Mackie of Attleboro, at the meeting of the Worcester Bee-keepers' Association, in the library of Horticultural Hall. This is in direct contradiction of a statement made by Dr. C. F. Hodge, of Clark University some time ago, and on which there has been considerable discussion throughout the country.

Dr. Mackie is not only a bee raiser, but a professional man as well, and has had a long experience with bees.

"It is a very common thing," he adds, "for bee raisers, men who are continually being stung by bees, to be sufferers from rheumatism."

* * *

"Successful apiculture demands close and accurate observation and hard and continuous thought and study."

MR. W. S. HART.

[See Frontispiece].

IT is always a pleasure to note the success of an honorable race in life's industrial competition. If the success has been achieved by one whose efforts and ambition have been parallel with our own, and the winner has invariably maintained a courteous and brotherly deportment toward others in the same field, the pleasure is greatly augmented.

In this light does THE AMERICAN BEE-KEEPER regard the subject of this very brief sketch—Mr. W. S. Hart—who has contributed so instructively to the columns of this number of THE BEE-KEEPER; and we are pleased to be permitted to present a good photo-engraving of Mr. Hart herewith, taken within the last month or so.

Not unlike most men who have won success in life, Mr. Hart is reluctant in speaking of himself and his achievements. The editor, however, having had a long personal acquaintance with him, is fortunate in the possession of much information concerning his career, and in accordance with our usual custom, shall make use of some of this information, by way of introducing our esteemed contributor.

After completing a course at a Boston Commercial college, Mr. Hart began business life in a wholesale dry goods house of that city, and later was likewise employed in some of the largest establishments of St. Paul and Kansas City. In 1875 he came to Florida to engage in orange growing. He soon recognized in bee-keeping the opportunity to acquire the necessary money to consummate his plans; and he has not been disappointed in the results of his judgment and efforts in that direction, as he has to-day several of the handsomest and most profitable groves on the east coast of Florida, as well as one of the most profitable apiaries on the coast.

Mr. Hart lost all his worldly possessions by fire on the way to Florida, and had, therefore, to begin empty-handed in a new and strange country—a city boy among strangers, far beyond the limits of railways and where "beasts of the forests" were far more numerous than human beings.

In former years Mr. Hart was quite a prolific writer, and as a result of his many valued contributions to the press, as well as his official connection with organized bee-keepers and horticulturists, both state and national, his name is yet familiar to the older readers of apicultural and horticultural periodicals. It is to be regretted that his fruit-growing interests so fully demand his time as to compel him to allow the old pen to rust; but when he does find a leisure hour with which to favor his favorite periodicals, his readers know that the subject is handled by one eminently qualified to speak.

Mr. Hart's honey crops have been uniformly large, but upon one or two occasions they have been exceedingly large. In 1884, from eighty-eight colonies, spring count, he secured 23,000 pounds of extracted honey; while in 1894 he took from 116 colonies twenty and a half tons—filling 101 barrels.

We believe Mr. Hart is at present treasurer of the Florida State Horticultural Society and has served the same Association as secretary for several terms. His official connection with the American Pomological Society, the National Bee-keepers' Association and several other state, national and county organizations, together with his extensive practical experience, in both branches of his business, and a studious disposition which seeks to account scientifically for causes and effects, have fairly won the distinguished position which his name now occupies among the universal authorities upon matters pertaining to his respective lines of research and practice.

Mr. Hart is a native of the Granite State; still in the forties; a member of the Masonic fraternity, and at present W. Master of New Smyrna Lodge; a local light in municipal affairs; a highly respected citizen; unmarried; one of the world's most practical and well-informed apiarists; a gentleman whom we esteem it an honor to know, and a true friend of THE AMERICAN BEE-KEEPER.

"Each colony of bees requires but very little attention and care. Our every interest demands that this be not denied."

OUR CORRESPONDENTS

QUEENLESSNESS—A LARGE NUMBER OF DIFFICULT CASES—HOW SHOULD THEY BE TREATED?

Marchant, Fla., March 26, 1901.

BRO. HILL—Tell me "what to do and how to be happy while doing it." I am confronted with a condition and not a theory; and, being but a 7x9 bee-man, I am not able to make matters straight. The conditions are thusly: Among our five hundred colonies there are about twenty-five that seem to think the only object in life is to supersede their queens. About Feb. 1st we found a few queenless colonies and let them have brood from which to rear queens. A very few did so, while others did not start any cells at all; others started cells and before ready to hatch destroyed them; and yet others would let the queens come out, become fertilized, and kill them before ready to lay. Some would let the queen lay just a few days, commence building queen cells, kill the queen and tear down the cells. I tried introducing laying queens and every one was accepted, began laying and were killed within a few days after. I have changed positions of the hives, thus mixing up the bees, but it is no go. The same cŏndition of affairs is reported by several neighboring bee-keepers. Now, can you tell me anything as to the cause of the trouble? It is not a lack of food or pollen, and it is not on account of weak colonies, but the trouble is on us just the same. If you want to publish this, do so, it may be of sufficient interest: but write to me. Bees are swarming and honey from black tupelo coming in at a good rate. Hope you are having a good season.

Yours as ever, M. W. SHEPHERD.

[Our correspondent has presented a very interesting case; and while we are not sure of our ability to advise one of Mr. Shepherd's experience—as he has had charge of extensive apiaries in various parts of the United States—we would say: We believe the practice of giving brood from which to rear queens, is productive of evil in several ways. The inferior quality of queens resulting from this practice would frequently justify the deportment which Mr. Shepherd reports on the part of the bees. The refusal of some of the colonies to construct cells and rear queens is, possibly, attributable to the absence of nurse bees in the hive. Some certain strains of stock appear quite indifferent to the importance of rearing a queen for themselves; but this apparent indifference is, doubtless, the result of some existing conditions, less apparent. Some colonies are loth to exercise their egg-laying power, even in instances of protracted queenlessness. Indeed, the presence of laying workers betokens lingering hope; while such colonies as permit their hive to become greatly depopulated without attempting to prolong their existence through the laying function are rather resigned to their fate and the doctrine of predestination. Thus, it will be seen, the latter condition is the more difficult to combat, and is probably the result of one or more futile efforts to retrieve. The introduction of several frames of brood—preferably sealed and hatching—inaugurates a new condition, more nearly normal, upon which to work. That an abundance of young bees are an essential to queen rearing is a point that should not be forgotten in the treatment of such cases. Imperfections resulting from improper methods or accident, are objectionable to the bees, though invisible to the apiarist: hence the dissatisfaction displayed by the bees in refusing to accept the result of their inadequate ability to supply a perfect queen. Mr. Quirin finds that unsealed brood in the hive is necessary to insure the proper attention and care by the bees when cells or virgins are used. In brief: if the conditions existing are unsurmountable, or difficult, change the conditions first then operate in new ground, so to speak. A country doctor was once called, so it is said, to see a patient who was suffering from a severe attack of fever. After repeated trials to allay the raging fever, anxious friends of the patient besought a reason for his ineffectual efforts, and the unlettered dispenser of herbs and pills sought to dispel all fears and doubts by confidently tendering the assurance that he *could* cure her. "I've got some stuff," said he, "to throw her into fits, and I'm great on fits; but I don't know much about fevers, no how." Now, we advise Mr. Shepherd to throw those colonies into fits, and then treat the fits.—ED.]

A HOME-MADE SCRAPER.

Rock Valley, N. Y., March 27, 1901.

AMERICAN BEE-KEEPER: I will try to describe a home-made propolis scraper. I have used one for a number of years made from the heel of a scythe. Cut off about four or five inches of the blade, with the shank to be drawn out for a handle of wood, or have a three-eighths hole put through and weld three-eighths round iron into the heel at right angles with blade. The edge should be slightly tipped in like that of a hoe, to do good work. The back of scythe should be cut one-half inch shorter than the thin part, so this can be beveled by filing, and it will scrape out the inside corners of hives or frames. The sharp edge should be filed straight, then beveled on the plan of the blades of shears, so that when you pull toward yourself the propolis will fly.

I would not know how to do without this tool for cleaning separators, frames or hives. It is valuable also to scrape off the top of brood-chambers and pry frames to take out, or clean top and bottom of a super of filled sections.

Thinking some other bee-keeper might wish to make this kind of a cheap and serviceable scraper, I trust you will tell them about it in THE AMERICAN BEE-KEEPER.

Yours truly, E. J. HAIGHT.

P. S.—I have a simple and cheap way of fastening foundation in sections that suits me better than any machine I have ever tried. E. J. H.

[Let us hear something about that foundation fastener, Mr. Haight. Never be afraid that any new kink or idea is too good for the readers of THE BEE-KEEPER.—ED.]

A LETTER FROM CANADA.

Chard, Ont., Apr. 15, 1901.

Editor AMERICAN BEE-KEEPER: Only on one previous occasion have I taken up the pen to drop in on you and yours, and as that article never saw the light of day, I expect this will fare the same, at least it should, as this is an uninvited guest while the other was sent on a special invitation. However, everybody knows that an editor needs, and most assuredly has, a good big waste-basket, to chuck the refuse into, and most likely feels like chucking some of his numerous scribblers into the same basket.

Now, as fate or fortune has it, I live in the cold, stormy North (but not in Alaska); it is Eastern Ontario a land usually in summer flowing with milk and honey; but in winter, oh!—well, it is quite the reverse, as you can see by the dates of my putting my bees in cellar: October 29, 1900, 102 colonies, and set them back on their summer stands, April 12, 1901, with a loss of only two colonies; not too bad after so long a confinement. They came out in good shape—brood in all stages—and now three fine, warm days in succession gives them a grand chance to clean up.

Through the columns of your valuable journal I wish to acknowledge receipt of letters from a great many bee-keepers in Florida, who extended to me so many hearty invitations to visit them at their homes in Florida during the past few months. It was my intention to have spent the winter in the Sunny South; but, having sickness in my household, it was impossible for me to leave my home for any length of time. Perhaps at some future date I may have the great pleasure of visiting my brother and sister bee-keepers in Florida.

Faithfully yours, W. J. BROWN.

P. S.—Long live THE AMERICAN BEE-KEEPER! W. J. B.

ASSOCIATIONS, PARALYSIS, ETC.

Plainville, Conn., Apr. 15, 1901.

EDITOR HILL, Dear Sir: I am a practical bee-keeper, but a member of no association as yet, but am thinking of joining two, i. e., the Connecticut Bee-keepers' Association and the National Bee-keepers' Association. But am I to understand that any one can join the latter Association by simply sending one dollar with nothing to show what kind of a man he is? I should think that some would be desirable members and that some would not. As for my own part, I have little to gain by joining an association of bee-keepers, and that is the reason why I have not yet joined the one in this State; but I am beginning to think that a mistaken way of reasoning, so I shall do what I can in my own State and elsewhere to get people to improve their methods of bee-culture. My neighbors will not improve their methods; and yet they have only one-third the bees they had four years ago, when I began bee-keeping, while I have one-third more and have secured enough surplus honey to make the business profitable. I believe that bee-culture can be made to pay a good profit in almost any locality, and in ordinary seasons when thoroughly mastered; but I believe that it has been thus mastered by only a very few.

It seems to me strange that Mr. O. O. Poppleton should suffer as he has from bee-paralysis I never had but one case, and cured that, and believe I could cure any other case, even if it involved several colonies.

I find that success depends on a few things, i. e., the kind of bees one keeps; the ability to winter in such a way that the colonies will be strong in young, healthy bees when spring comes; the ability to keep bees free from disease; the ability to sell our honey at a good price. All these things I have succeeded in, else I could not say the business paid. Yours truly, D. B. NORTON.

[To become a member of the National Bee-keepers' Association it is necessary only to send one dollar to Hon. Eugene Secor, Forest City, Iowa, with a request that you be enrolled upon the membership list of the Association. Every man who is sufficiently interested in the welfare of our industry to send the dollar, is a desirable member. No one will do so who has not the interest of the fraternity at heart. The Association will welcome your name; do not delay in sending it in. A single case of paralysis is insufficient to afford much acquaintance with the disease. Should you be so unfortunate as to have further acquaintance with the disease, it is not improbable that you would find it more difficult to combat. A single case is liable to cure itself almost any day. A teaspoonful of warm water given night and morning for several days will sometimes be found to be a ready remedy for the trouble; but it is a peculiarity of the malady that if you fail to give the remedy, the disease is as liable to disappear as where the treatment is continued. Sometimes, however, any amount of doctoring fails to cure. It is doubtful if ever there was a case of genuine paralysis in your State, Mr. Norton; it takes the South to produce the "real thing."—ED.]

Corona, Cal., April 4, 1901.

FRIEND HILL: The Carniolans are still ahead in spite of their great enemies—Messrs. Doolittle and Hutchinson. I have one colony in an eight-frame hive that filled a twenty-four section super in February, and the fourth one was put on the 27th of March. They are now ready for the fifth. This colony was made by division one year ago, they rearing their own queen. The Italians have, some of them, one super filled. I would like very much to know of a colony of bees with an Italian mother, having beaten the record so far, of this Alpine beauty. I also have several colonies of Cypro-Carniolans that promise to be great honey-gatherers. I am rather disappointed in finding them very gentle to handle. I desired them for an out-apiary and to be vicious stingers. The queens of this cross are very prolific. At the close of the season I will tell you more of these bees.

Truly yours, H. M. JAMESON.

* * *

"To prove that bees can hear is easy, but to determine the location of the organ is more difficult."

* * *

A Letter from Deacon Hardscrabble.

Dear Brother Hill:

"No thing is so perverse in nature
As a profound opinionator."

And in the face of that you ask that I write to you of my opinions of the "boys," their sayings and their doings. Frankly, now, do you think it right to rout me from my innocuous desuetude to talk of other people's doings? And suppose they do not like it, just think how the old deacon will catch it! Suppose I should get as reckless as that persistent Doctor who is trying to build a straw stack which no sooner is well started than the very foundations are Rooted from under it. Suppose, again, that I should speak my thoughts in epigrams, then would somebody Hasty-ly say that I was After Thoughts of his. If I chanced to get drowsy at my work, they would call me a Somnambulist, and if I went to the other extreme and let flow a torrent of words, he of the Windy City would say I had usurped his prerogative, and Wax Hot and Cool Slowly. Should I write my thoughts in Dolly Dialogues and get prosy, then should I Do Little that would be of value to you. Perhaps, after all, I had better confine myself to the Home Circle; but should I do that the Cook would revolt. Fact is, the more I think of it, the less I think of it. However, I will think of it at greater length and let you hear from me again.

I have been much exercised this spring by some "Golden Italians" which, from the quickness of their operation must be some sort of Golden Zones. Calling them *Italians* is enough to make Garibaldi rise from his grave. They are naught but the crossest kind of Syrians. What a mint of money the bee-keepers are throwing away on queens each year! They certainly are fond of hum-bugs. Rambler even asks to be taken in. I wonder if any of the queen-raisers can produce bees with tongues as remarkable as their own?

That scheme of Rambler's to have a little club of bee-keepers employ a man to raise their queens for them from stock of their own selection, seems worth considering; but it were well for him to be careful how he advocates it, or some Southland Queen will be throwing Chunk Honey at him.

What think you of the Triplets as they appear in the March *Review?* Sweet, aren't they? Only H. looks a trifle frightened. I surmise he does not like that end of the camera. He is only being done as he has done others, so he must not complain.

Some day I should like to write to you of the systems of the Swarthy Moor; but there is something in the set of that jaw which reminds me of the late Sage of Gramercy Park, and I hesitate. I wonder if his "pointed" way of holding queens has anything to do with it?

Here is something to remind you of old times. Mary has been cooing around wanting me to drop my writing and go somewhere with her. She asked me to whom I was writing, and when I told her, she went off singing, "There is a Green Hill," etc., and in reply to my remonstrance said: "Oh, never mind, Papa, he is not so green as he looks."

Let this suffice until some future day.

Yours as ever,

JOHN HARDSCRABBLE.

* * *

"The bee-keeper who understands the language of bees can turn it to his advantage."

* * *

"The fickle, careless, indolent man will as surely fail in bee-keeping as in any other calling."

CONVENTION NOTICE.

Editor AMERICAN BEE-KEEPER: Many inquiries have been received by the Executive Committee of the National Bee-keepers' Association regarding the time and place for holding the next convention of the Association. The reply has generally been that Buffalo, N.Y., would be the place of meeting; but until this morning (April 17th) the date of meeting has not been settled upon.

On March 2 the Secretary of the American Pomological Society wrote President Root in part as follows:

"As bee-keepers and fruit-growers have many interests in common which could be considered and discussed with mutual profit, our Executive Committee has instructed me to extend to your Association a cordial invitation to hold a joint meeting at some time during our session, the exact time to be decided later by correspondence.

At this meeting we would suggest that the subjects of discussion center round the general topic of the mutual relations of bee-keeping and fruit-growing, . . which can be briefly treated by speakers selected in advance from among our prominent bee-men and fruit-men, . . in order that a better understanding of these mutual relations may be reached. . . It has been suggested that a considerable portion of fruit-growers do not yet appreciate the preponderance of the benefit derived. It is felt that a full public discussion of the subject would, therefore, result in good to both industries."

Realizing, as the Executive Committee did, that this was a golden opportunity for presenting the bee-keepers' side of the subject to the representative men of the fruit-growing industry, the invitation of the Pomological Society was at once accepted by the Committee in behalf of the Association.

We have had to delay the fixing of the date for our Convention until the Pomological Society had fixed their time of meeting. Our Convention will be held on the 10th, 11th and 12th of September next, commencing on Tuesday evening the 10th.

We were at first undecided as to place of meeting, hoping that the G. A. R. would meet at Denver, Col.: but when it decided to meet at Cleveland, and we received the invitation of the Pomological Society, we felt that we ought not to miss such a splendid chance to enlighten some of them on the relation of bees to horticulture; and, by meeting at Buffalo, the York State and Canadian bee-keepers would be within easy reach of the place of meeting; so we at once fixed on Buffalo as the most desirable place.

It has been decided not to have any papers or essays, but to rely wholly on the question-box to bring out the best and most important matters for discussion, so that any one not being able to be at the Convention, having any question or questions they may wish to have discussed, can send them to the Secretary at any time.

The Committee has taken the liberty to request the Secretary of the Ontario Bee-keepers' Association to ask the members of that Association who may attend the meeting at Buffalo, to bring their badges with them and wear them at our sessions, whether they are members of our Association or not, so that we may feel more as one, and know who our progressive neighbors are.

Information regarding place of meeting, entertainment and railroad rates will be given as soon as decided upon. Don't be in a hurry about securing a sleeping-place during the Convention. There is plenty of time, and later on better rates can be secured; but if you are in a hurry, write to the Young Men's Christian Association and don't be bled by "sharks."

A. B. MASON, Sec., Sta. B, Toledo, O.

* * *

"Attend conventions whenever distance and means render this possible."

"Enthusiasm is very desirable, if not an absolute requisite to successful apiculture."

THE AMERICAN BEE-KEEPER

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☞ Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER, Falconer, N.Y.

☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Mr. A. J. Burns, of Black Mountain, Cal., writes encouragingly of the prospects for a honey-crop in his section of the State—San Diego County.

Taking all things into consideration, Mr. Doolittle has decided that he prefers to live and keep bees in New York State rather than Arkansas; and has therefore returned to the old stand.

It is our rare privilege this month to have a case of measles against which to charge any editorial shortcomings.

Under favorable conditions success is easy; but it takes pluck and energy to transform adverse conditions into something which will contribute to our success.

Any one having copies to spare of the January and February numbers, current volume AMERICAN BEE-KEEPER, will oblige us by returning them to the publishers. We will advance your subscription three months for each one.

The *Canadian Bee Journal*, in its March number says that reports of indoor wintering continue favorable; but that the bees wintered outside have had "a pretty stiff winter," and that they have had no fly since early in December.

In an unpublished communication now in hand, the author intimates that if queen-breeders could produce bees with tongues approximating the length of the would-be vendor's tongue, there would be no difficulty about their reaching nectar—well, say, in the bottom of a churn.

When a queen-breeder offers as his greatest inducement to buyers to send out queens from a mother valued at fifty, one hundred, two hundred, five hundred or a thousand dollars, he should be regarded with suspicion. If he is not a fakir pure and simple, he is not what he appears to be in the eyes of the honest business world.

L. L. Skaggs, in *Southland Queen*, admonishes his readers to not depend on the cardboard now furnished with some mailing cages, as a means of having the queen released in the proper time. Strong colonies, he says, will tear it off at once, while weak ones will hardly touch it at all. Indeed, this is about what any one of experience would expect.

Mr. N. L. Stevens, Vice-president of the New York State Association, under date of April 6th, wrote: "Although bees were confined in this locality about four months, the loss will not be so heavy as anticipated; and, unless augmented by spring dwindling, I do not think it will be above the average." Mr. Stevens took occasion to say some very complimentary things about THE BEE-KEEPER, when writing, for which he has our thanks.

From a few of the first of the Hardscrabble series of letters, the initial one of which appears in this number, we do not hesitate to promise our readers something rare in the way of a humorous digest of current beedom. To those who will draw a focus upon the Deacon's quill and observe its alternate dippings into honey, ink and gall, it will become evident that he is an old and close observer of bee-keeping affairs.

"I am very anxious to know how soon all danger of spring dwindling will be over. If possible, please tell me definitely, to the day, and oblige," writes a New York subscriber. In reply we can only say: When the weather has become settled and warm; when the circles of brood in the combs are enveloped in glistening honey and patches of yellow pollen; when the thousands of hatching workers are found crowded into the extreme corners of the hive, and vacant places are being filled with new, white comb. When these conditions, together with the bluebird and the almanac proclaim the arrival of summer, then may the dangers of spring dwindling be considered safely over for this year.

The *Progressive Bee-keeper* has proclaimed itself on the slow cooling and yellow wax question; and, having had experience in handling tons of wax, of course, truthfully says "the color will not settle." The *American Bee Journal*, however, clings to the fallacy that "slow cooling is the secret of securing bright, yellow wax," although every bee-paper in the United States at the time the discussion opened, has expressed itself in support of THE BEE-KEEPER'S original statement, that slow cooling will do nothing of the kind. We desire, however, to give Mr. York the benefit of any consolation he may find in a knowledge of the fact that this office is in receipt of a letter from an experienced handler of wax who says the editors are all off; and that he will later clear matters up. We are informed that this gentleman, through some private process of treatment, secures from three to four different grades of wax from the same combs. He says, though, that all this talk about slow cooling being the secret of getting bright, yellow wax, "is the rankest nonsense."

"We value THE BEE-KEEPER highly; it is very practical and indispensable," writes Mr. H. G. Burnet from far-off Kingston, Jamaica. It will be seen how widely scattered are the patrons of THE BEE-KEEPER. It goes regularly to subscribers in every civilized land where English is spoken to any extent; and our readers will appreciate the impossibility of so editing as to have its contents strictly applicable to any one locality. Mr. Burnet has kept bees since 1879, in the northern states, in the southern states and in the West Indies; and he therefore readily appreciates the conditions under which we labor. At this early date in the history of apicultural journalism, our readers should exercise charity. Patronage and space are necessarily limited, as it is also in the case of all other bee-papers at this time. The southern subscriber should not begrudge the space which may be devoted to a discussion of wintering problems, neither should the northern reader growl because his unfortunate brother in the South relates at length his troubles with mosquito-hawks, ants, moths, bears, hurricanes and earthquakes. All should lend a hand toward the extension of the subscription list by sending sample copies and talking the paper up to bee-keeping acquaintances until such times as the support will justify us in increasing the space to, say a hundred pages, and engaging the services of a staff artist and leading writer for each state and foreign country. A northern subscriber who joined us but last year, recently wrote that THE BEE-KEEPER was becoming a power in the field, and that there were wonderful possibilities before the apicultural journals of the country. He says, "the field has hardly been touched." While we believe with our correspondent that there are great possibilities before not only the journals, but the bee-keepers of the world, we think the high spots have been severely "touched;" so much so that they have been nearly leveled to the common surface of the rather low plane which our industry yet occupies among those of the world. It now remains for the enthusiastic and studious to dig below the surface and bring to light some of the hidden truths and principles not revealed by knocking off the high places.

WAX EXTRACTORS.

The article in this number, by Mr. C. G. Ferris, in which is discussed the latest development in the evolution of the wax extractor, suggests the expression of our personal ideas along the same line.

Of the products of the apiary, none meet with so ready a sale at a profitable figure as beeswax. At any season of the year it may be at once converted into cash, if desired. In our experience of about twenty years we have not seen the time when the wax market could be said to be burdened. Where care and economy are carefully exercised it is surprising what a quantity of wax will accumulate during a single season, even where but a few colonies are kept. In earlier days the wasteful, dauby and disagreeable work necessary to procure the wax from waste bits of comb tended to discourage economy along the line of saving. The introduction of the first steam extractors and the solar device were welcomed as a great advance step—which, indeed, they really were; but experience has taught that by the use of either of these arrangements it is impossible to procure nearly all of the wax contained in the combs and waste about the apiary. Our personal experience includes a very intimate acquaintance with each and all of the contrivances for rendering wax, which have been placed upon the general market. This acquaintance, however, has never been conducive to any great amount of pleasure or satisfaction until, some two years ago, we became acquainted with the Ferris extractor.

It is doubtful if any other one man in the United States has given the matter of wax extractors an amount of deep study and careful thought equal to that bestowed by Mr. Ferris. His experiments cover a period of years, and his success must be a source of gratification to himself as well as to the thousands of progressive bee-keepers who have heretofore had to make the best of a very faulty arrangement. Steam—lots of steam—and heavy pressure while the mass of melted combs are yet under steam, is the only method yet devised that will extract nearly all of the wax. We have learned by experience that the Ferris extractor asks no better material upon which to work with profit than the refuse from a solar extractor. Though invisible, this refuse is laden with nuggets of wax which the "Ferris" never fails to find and discharge into the vessel placed at its side for their reception.

While the Ferris extractor is well adapted to the needs of the small bee-keeper–in fact an essential where one desires to utilize all his resources by providing against a wanton waste of a valuable commodity—the great facility with which large quantities of combs are transformed into wax, appeals with especial force to the consideration of the extensive producer. It is with a view to meeting the requirements of this wholesale rendering that the two, three and four-basket styles have been designed; while the one-basket kind will be found quite adequate to the needs of all ordinary work.

Mr. Ferris' ingenuity has given to the bee-keeping world the most economical and efficient extractor yet introduced; and the popularity which it has already achieved is ample proof of the fact that bee-keepers are not slow to recognize a really meritorious article, as well as the additional fact that the time was ripe for the introduction of some more convenient, cleanly and expeditious means of rendering wax.

* * *

"Persistence in the face of all discouragements, which are sure to confront inexperience, will surely triumph."

LITERARY NOTES.

THE SATURDAY EVENING POST for May 11, contains an article by Sir Thomas Lipton on The Sports that Make the Man, written especially for this paper. He places yachting high on the list, and gives some interesting anecdotes of his own career as an amateur yachtsman. Sir Thomas is hopeful, if not confident, of "lifting" the America's cup next autumn. He says, however, that if it were a certainty he would not cross the water; for there is no sporting interest in "sure things." This article will appear exclusively in The Saturday Evening Post, of Philadelphia.

THE APRIL AMERICAN BOY (Sprague Publishing Co., Detroit, Mich.) is brimful of good things for boys, as usual. It contains 112 pictures. Its leading article treats of gentlemanliness. The stories are: The Boy who Rode a Moose; Go It, Tom; The Men of Might: or, The Lusty Nine; The Great Bicycle Race at Pultney; Splitting the Herd; Three Boys in the Mountains; Lazy Jack: A Vegetable Discussion, and The Cruise of the Yacht Gazelle. Other items of interest are: Talks with Boys and Their Friends; The Charleston Navy Yard and A Visit to an Ocean Liner; Turning Points in a Boy's Life; The Boys' Picture Gallery; The Boy's Library; What Boys are Doing; Boys as Money Makers and Money Savers; April in American History; How to Make Your Own Tackle and Something About Fishing; The Agassiz Association; Boys in the Home, Church, School, Office, Store, Factory and on the Farm; The Order of The American Boy; Boys in the Animal Kingdom; The Poultry Yard; Boys in Games and Sports; The Boy Stamp and Coin Collector, and the Boy Photographer. This is one of the handsomest numbers yet issued by this company. $1 a year.

THE MAY COSMOPOLITAN has an attractive and useful article on The Art of Entertaining, by Lady Jeune. Many women have been reproached for living for the sole object of entertaining. No one doubts that such an aim is petty and narrowing, but it is equally certain that it is a woman's duty to understand it.

THE LADIES' HOME JOURNAL for May brings to light the fact that there have been one hundred and twenty-one generations of the human family, beginning with Adam. Alfred Judson Fisher, the Chicago historian, has woven the highly interesting results of a genealogical investigation into "A Daughter of Adam." and traces the heroine of his romance (in real life a well-known Philadelphia woman) directly back to Adam, establishing with corroborative detail every link in the long genealogical chain.

MODERN CULTURE for May is a magazine for nature-lovers. An Ohio May Time, by Austin Matlack Courtenay, is a dainty bit of spring poetry, full of the rythmic music of the May. In the Garden with Shakespeare, by Mrs. E. A. Matthews; Wood-notes, by Nora Archibald Smith, and Birds in Literature, by C. A. Urann, form a trilogy of nature articles of enticing interest to the lover of birds and trees and flowers. Rambles Out of Doors by Mr. Orlando J. Stevenson, takes the reader with him into the depths of Canadian wilderness through all his summer outing. Matanzas, the City of Cuban Homes; Railroading in the Philippines; the Future of the Bicycle, and many other splendid articles by well-known writers, help to form a very interesting number.

* * *

"He who appreciates the beautiful and marvelous will soon grow to love his companions of the hive."

"Bee-keeping is especially to be recommended as an avocation."

Honey and Beeswax Market.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

BUFFALO, Apr. 19.—Fancy 1-pound white comb wanted, at 15 @ 16c. Dark comb, dull at 12 @ 8c., according to grade. No demand for extracted. Beeswax is always in moderate demand at good, average prices. Fancy pure sells at 27 @ 28c.; other grades lower. Dark honey is dragging, but fancy stock is needed. BATTERSON & CO.
Removed to large, new store, 92 Michigan Street.

NEW YORK, April 20, 1901.—We have to report a small stock of comb honey in this market. Prices rule about same as our last report, while there is but little demand. FRANCIS H. LEGGETT & CO.

CHICAGO, Apr. 18.—Choice grades of white comb honey continue to sell at 16c. per pound, and there is no surplus in sight. Other grades of comb sell fairly well at the following prices: No. 1 grades of white, 14 @ 15c.; off grades, 13c.; light amber, 12c.; dark amber, 10 @ 11c.; buckwheat and other dark combs, 9 @ 10c.; candied and mixed colors, 7 @ 9c. Extracted is dull and prices very weak, with the exception of some fancy linden and clover grades, which is quotable at 7 @ 8c.; ambers, 6 @ 7c; dark and buckwheat, 5 @ 6c. Beeswax, 30c.
R. A. BURNETT & CO.

KANSAS CITY, MO.: April 20.—Owing to the late spring the demand for honey is good with good supply. Price of comb, 15 @ 16c.; Extracted 6@8c. Beeswax is in good demand at 30c., with light supply. All stock of honey will be cleaned up at good prices. HAMBLIN & SAPPINGTON.

* * *

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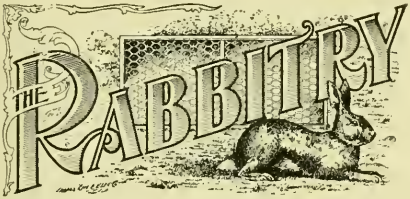

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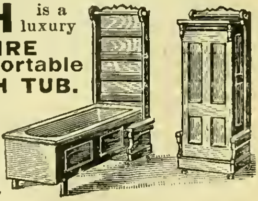

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PUBLISHED FOR
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BEES AND
HONEY

MURRAY-FEISS.CLEVELAND.O.

JUNE

1901
Vol. XI
No. 6

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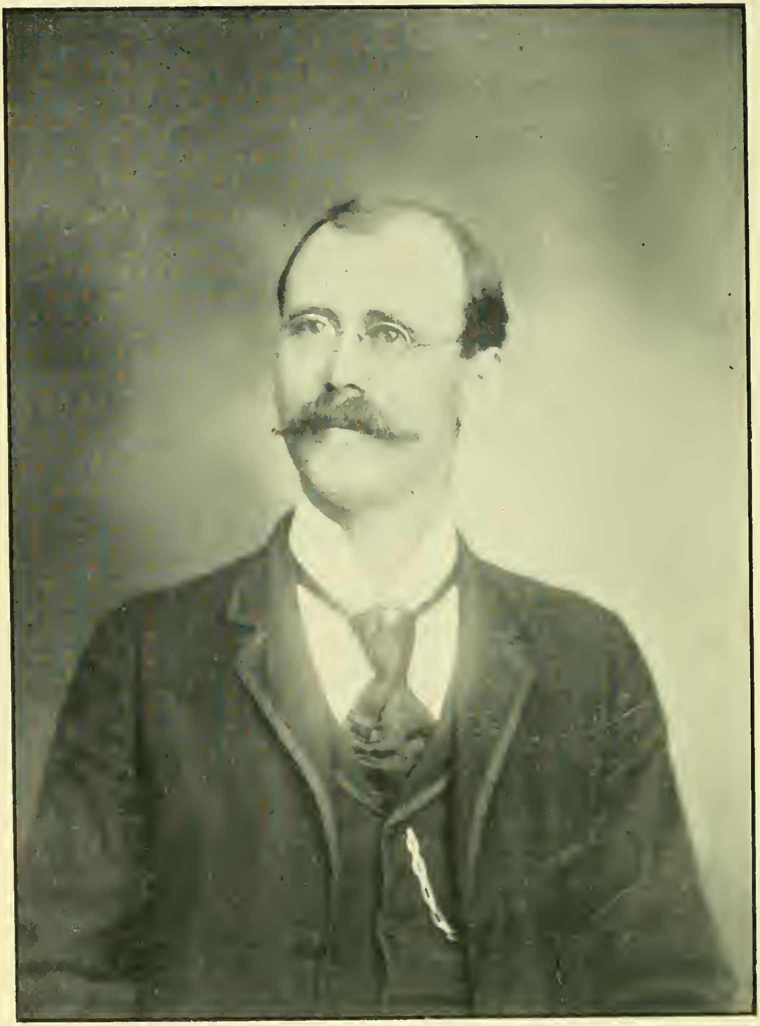


MR. W. H. PRIDGEN. [See page 169.]

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI JUNE, 1901 No. 6

DRONE CATCHERS.

An Exposition of the Shortcomings of Our Arrangement for this Purpose, Together with Specific Instructions for Their Rectification.

BY W. H. PRIDGEN.

YOU say, Mr. Editor, on page 6, current AMERICAN BEE-KEEPER, that "it is rarely indeed that any combined machine or device really combines." Now, while your drone trap may be quite an improvement on the original, I will suggest a combination that prevents clogging and admits of better ventilation even than yours does. As I see it, there is "one thing thou lackest," and that is a double bottom-board, with an entrance and bee-space between, the top one being a regular queen-excluder, with an entrance between it and the hive to which the drone-trap is adjusted, or it may be a solid board with opening cut out and the same covered with perforated zinc. By hooking the trap to the hive the top bottom-board or excluder need not project at all, as the zinc of the trap can be put in to fit against the end just below the upper entrance, or, more properly, the exit, as the entrance would be between the boards. Besides, the exit and trap for drones can be at the back of the hives and thus overcome any confusion and clogging, and at the same time add to the ventilation. The weather is usually warm when we wish to trap drones and we often want to raise the hive on blocks rather than cut off ventilation by attaching a drone trap, and by using an excluder as above suggested, we can trap the drones with one trap and still have an entrance wide open at each end between the excluder and bottom-board proper as well as getting the usual benefits from the one to which the trap is attached. The excluder can remain in place all the while and have all the openings closed except one when no trap is adjusted. This adjunct gives the operator control of the situation in the matter of ventilation as well as trapping the drones without interfering with the progress of the colony, even if the old style trap be used.

In using the combined queen and drone trap on hives that are sending out objectionable drones, I usually have trouble in separating the queen from the drones in case a swarm issues, without allowing the escape of many drones. This can be overcome by a double or combined trap. There should be a division made of drone-excluding zinc through which the queen can freely pass with an additional trap with ordinary cone above, to catch the queen. That is, to separate the queen from the drones, we want two traps, one above the other, with the slide in the top of the drone trap, with perforations large enough for the queen to pass through without allowing the drones to do so. Where one is on hand in such cases to care for the swarms, it would be better to use zinc exclusively that the queens can pass through, for the excluding bottom-board as well as drone-trap, and then the swarms can be hived in the ordinary way without allowing a drone to escape. Besides, queens can mate from such hives as though no zinc was being used.

Creek, N. C.

[And still Mr. Pridgen is trying to "combine" a drone trap and a hive ventilator. Why not pursne the same American craze, Mr. Pridgen, just a little farther and combine a self-hiver with your combined ventilator, queen and drone trap? As we have said before, our device is devised to meet but one purpose. It is not always desirable that a hive should be so thoroughly ventilated at a time when the drone-catcher is in use. If it should be desired, the hive may be ventilated in the way suggested by Mr. Pridgen, if that method is one which pleases him. It appears to us, however, to be going a very long way around in order to use in combination a point that is always so readily accessible. And suppose our hives have not removable bottoms. Then, there are thousands upon thousands of persons having a few colonies, who may desire to use a queen trap or a drone-catcher, and who have never had a perforated excluder in the yard. To be brief and strictly honest, Mr. Pridgen, we would suggest that, no less than ourselves, "one thing thou lackest"—in the construction of your improved drone-catcher, and that is a hive to go with each catcher which will conform to the working requirements of this new product of your genius. Combinations are yet at a great discount in this field. Ventilation is hardly restricted at all by the use of our drone catcher. If it were, why not slide the honey-board directly endwise, leaving a free passage of air diagonally through the interior of the hive. That provides perfect ventilation without extra cost and at ten per cent. of the trouble advocated by Mr. Pridgen. When we invent a hive-ventilating device there will be no drone catcher about it. It will be devised for ventilating hives.—ED.]

* * *

"Many fall into the error of judging entirely by results, regardless of causes."

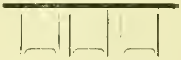
* * *

'Tis but a part we see and not the whole.
—Pope.

PREVENTION OF INCREASE.

BY J. H. JOHNSON.

FOR the benefit of those who would try my plan, I will say that it is sure and procures honey, if any is to be had. We need perhaps half as many temporary hives as we have permanent ones. These need not exceed, exclusive of labor, twenty-five cents each in cost. These little hives have two sets of rabbets or supports to accommodate section boxes. The one set is at the same height from the bottom-board as it is in the regular hive; the other set is half way down beween this and the bottom. The opening side or door is simply a movable division-board with a top-bar tacked on the top. A slate or board will answer for a cover. The brood-frame I use is 12½ inches long: my section is 4⅛ long, so that a tier of three sections equals the length of a brood-frame. My section is 5⅛ high: the brood-frame 10½, so that two tiers of three sections each equal a brood-frame. In the winter when I have leisure I get basswood lumber, seant three-sixteenths thick, of the same width as my sections; saw it into pieces of the same lengths with my brood-frame top bars. Now, with half-inch wire nails tack three sections lengthwise underneath each piece, thus:



We will call it a triplet of sections. Two equal a brood-frame. Those projecting arms rest on the rabbets spoken of above. When shifted on top of regular hives, later on, they rest on the upper edge of the surplus cases.

When a swarm has issued, prepare to hive thus: In the center of a temporary hive hang two combs: they may contain honey and brood, some of which should be unsealed larvæ. The object of these combs is to help hold the bees, furnish laying room for the queen and to hold the pollen that the bees may gather. On both sides of these brood-combs hang as many triplets of sections as the bees will utilize. Let the swarm run in and set it a foot or two from the parent stock: or, preferably, if more swarms issue, exchange location with them. In three or four days the new swarm should be examined. If the queen deposits eggs in the surplus boxes, or if they are half, or more than half filled with comb, they should be removed and empty ones inserted in their place.

A swarm can be returned to a parent stock in four days, cured of the swarming fever, though I often retain them six days or even longer, according to the amount of work done in the boxes, or to suit my opportunity. I unite a swarm from one of those temporary hives with a parent stock as follows: Smoke both colonies well: dislodge the bees promiscuously in front of the parent hive; cut off all queen-cells. The two brood-combs from the temporary hive may be removed and used as desired. I now give plenty of surplus room above, as the bees take immediate possession of those newly constructed combs in the surplus boxes taken from the temporary hive. Where the queen has deposited eggs in surplus boxes, they should be retained for four days or more till they become sterile. These boxes serve an excellent purpose as bait combs.

Middaghs, Pa., May 5, 1901.

* * *

Summer now comes on apace,
The hum of bees doth fill the place,
A harbinger of full treasury.
—A. C. Miller.

UNITING BEES.

BY W. T. STEPHENSON.

NO PLAN for uniting bees has yet been given that has been successful with every one, nor will there be, owing to the carelessness of the practitioners. Most all of the plans, it seems to me, are faulty inasmuch as they employ too much moving of hives, etc. The plan I shall give is so simple that anybody can succeed with it. First decide which of the queens is most desirable, removing the condemned one. In making this decision the past record of the queen should be consulted. It would be poor policy to condemn a queen that has a good record simply because she does not happen to have her colony as populous as another at this season; her past record should decide her destiny. Having made one of the colonies queenless, sprinkle both colonies with a strong solution of peppermint and water. Take all of the brood from the queenless bees and give it to the other hive. Cage the queen for safety. Leave them thus until the queenless colony discovers its loss, signifying the same by running over the front of the hive in a confused manner, flying a short distance and returning. Now, take the hive-body containing the queenless colony and set it on the hive to which it is to be united, and the work is done. Move everything away from the old stand so that it will not look like home to them.

I do not have any trouble with the bees that I get in the hive returning to the old stand. Being in such a perilous condition—hopeless queenlessness—and then being suddenly ushered into a normal colony, they seem to make themselves at home.

After a half-hour I set a hive body with a comb in it to catch the flying bees. When they have all clustered on the comb, they are shaken into the other hive.

In case the bees do not know how to treat their visitors, but go to wrestling with them (which is hardly ever the case if enough peppermint is given) give them a good, sound smoking, dropping a little tobocco in the smoker, to teach them better manners.

In two days remove the cage containing the queen; tack a piece of wrapping paper over the hole in end of the cage. Punch in the paper several pin-holes. The bees, in their effort to get at the queen, will soon tear the paper off and liberate her.

New Columbia, Ill., March 4, 1901.

The Seasoning Series

By Deacon Hardscrabble

Dear Brother Hill:

Without waiting for me to say yes to your request for opinions, you have gone and published my letter. I feel like—well, never mind. You have put your foot into it, and as I do not want to leave you in the lurch, I will have to help you.

In a late number of the *American Bee Journal* I noticed that a Peelee Islander has gone for the champions of the bees as agents in transferring pollen. He is giving some facts which seem to have heretofore been carefully avoided by the bee-men. Refreshing! Incidentally he has shown up some errors of the man from Borodino. Dangerous!

In the same paper I find this: "In *natural* conditions a colony may be several miles from other bees and probably requires all the drones that it may produce." . . . . "Yet, to avoid in-and-in breeding, which *Nature* so abhors, we should not breed both queens and drones from the same colonies." (The italics are mine.) Evidently, Dame Nature sometimes gets confused. The same writer continues in the next paragraph with "These propositions being well established." Phew! How long since? And this in the twentieth century, and from the Hancock County veteran!

Here is a bit of advice from an Empire State woman: "A good instruction book, a periodical and a few colonies at the start." Excellent! But what book and what periodical? A youngster came to me the other day to ask me which book he should get. Do you know, I did not dare answer off-hand, and finally I gave him Langstroth, not revised. As to periodicals, I suppose you think I said THE AMERICAN BEE-KEEPER? Well, I did; and one other to go with it, just to balance it, you know.

I am decidedly skeptical as to the value of increased tongue-length: if it enables the bees to get honey from red clover, what is to prevent their getting it from undesirable flowers also, which were previously beyond their reach? The "get there" of the bees lies more in their energy than in the length of their tongues. With humanity it is likewise.

In *Gleanings* for May 1, I see that the Borodino veteran has an article headed, "*Working* for Comb Honey." (my italics). He would be sure of it if he tried to run eight or ten apiaries on that system.

In the same number a Rhode Islander says, *apropos* of thoroughbred queens: "Do not confound scientific in-breeding with in-and-in breeding." Isn't he rather mixed?

You will find hats with elastic bands on sale at Wanamaker's. Order by mail. Get it before you read the editorial in the same number of *Gleanings* on what you have done for THE AMERICAN BEE-KEEPER. Harry, my boy, don't believe all you read, for sometimes it isn't all so. That kind of taffy is not so harmless as what you used to get at the candy pulls.

That resident of Hawks Park certainly possesses an eagle eye for labor saving, and he is far-seeing as regards the necessity of separating the thin from the thick honey. It wouldn't ruin the business to have some more just as particular.

In the *Ladies' Home Journal* for May, Mrs. Rorer says: "Honey is an admirable sweet, if taken once in a while with moderation." I prefer mine with bread and milk; and as to the moderation part, just how much is that, please? She isn't nearly rabid enough to suit the bee-keepers. There are two sides to every question and exactly opposite to each other.

I wonder how much good the advice I have given will do you? We all receive advice, but—most of us "know better."

Yours as ever,
JOHN HARDSCRABBLE.

◆

Nothing great was ever achieved without enthusiasm.—Emerson.

SOMETHING ABOUT DRONES.

BY G. M. DOOLITTLE.

A CORRESPONDENT wishes me to tell the readers of THE AMERICAN BEE-KEEPER whether there is anything in the matter of "no drones, no swarms," which a friend writes him is a fact. He thinks if this is a fact, that it is easy solving the non-swarming problem. And Doolittle wishes that those few bee-keepers who argue that, if all drone-comb and drones are kept out of the hive it would prevent swarming, had facts on their side.

This matter has been under discussion in the bee papers, off and on, for the past ten to fifteen years, and I have experimented largely along that line; but in all of these experiments I have failed to find that this matter of drones has anything to do with the matter of swarming whatever. And beside these direct experiments I have several times had hybrid colonies in my apiary, from which I have taken all drone combs and not allowed them to rear drones, because I did not want my young queens to meet such drones; yet, so far as I could see, these colonies swarmed as promptly as did those having drones. I said, "from which I had taken all drone comb," and meant just this; but will explain that, to keep all drones out of a hive, means the opening of that hive every twenty days, and decapitating a few hundred drones in their cells; for where all drone comb is removed, drone-cells will be built in all sorts of out-of-the-way places, for I have yet to see the hive containing a populous colony, one strong enough to send out a prime swarm during June and July, that had not a few cells of drone-comb in it; and I do not believe that these few cells can be kept out, for worker comb will be cut down and drone built in its place if a few cells cannot be gotten otherwise. From my experience in the past, I would say that it it not practical to try to keep all drone comb out of any hive, but rather have just one frame in each and every hive, having from ten to twenty square inches of drone-comb in it, and have such comb stand in a certain place in each hive, so that the apiarist may know just where it is; then every twenty days open the hives from which it is desired that no drones shall fly, and decapitate them, thus making a sure thing of the matter, and fully satisfying the bees. In this way you will not have a few drone-cells scattered all through the hive, nor will you have to use a drone-trap at the entrance of such hives to catch undesirable drones, the same making quite a cost and much work for the bee-keeper, in putting them on and emptying the same; besides a general bother and disgust to the bees, when first put on, and at times of the flight of drones and young bees.

If this comb with drone-cells is placed

near the outside of the hive, and the drone-comb is near the top bar of the frame, you will not have to decapitate the drones more than two or three times during the season, for the queen will be slow in depositing eggs in it; and when honey comes in so the bees begin to prepare for winter stores, they will fill it with honey, thus keeping the queen from depositing any more eggs in it that season.

If, in addition to the above, the top bar to the frame, directly over this spot of drone-comb is painted white or red, you will know just where this comb is, without taxing your memory with the matter; and this will tell you exactly where such frames are, should they become displaced at any time through your manipulations, by way of spreading of the brood, giving colonies which are short of stores frames of honey, etc. All of these little things, when known and practiced, make up the "mickle" of successful bee-keeping.

Borodino, N. Y.

* * *

Mine be a cot beside the hill;
A beehive's hum shall soothe my ear;
A willowy brook that turns a mill,
With many a fall shall linger near.
—Sam'l Rogers.

* * *

EXTRACTS FROM FOREIGN BEE LITERATURE WITH COMMENTS.

BY F. GREINER.

IT is stated in *Imker's Rundschau* that a single corolla of red clover contains one-eighth milligram nectar. A honey-bee may carry at one load sixty-two milligrams. Before such a load is deposited in the hive we can calculate that the 62 mg. raw nectar have been reduced to about 40 mg. by the bees extracting the superfluous water. It has been found that a single cell of store-comb holds about four hundred mg. of honey or about one-sixtieth ounce, thus requiring ten full bee-loads to fill it. One million such loads would weigh four kilograms or about 9¼ pounds. It would not be unreasonable to suppose that a very populous colony of bees could send out enough workers in one day to gather a million loads in an extra good honey-flow.

The *Central Blatt* recommends air-slacked lime for driving away ants, which become very troublesome at times. They like to locate in the space between the inner and outer walls of chaff hives. The lime will be cheaper than the insect powder I have used to drive the ants away.

An old skep of bees—more than a centenarian. The *Wiener Bienenvater*, reports that an old bee-keeper in Phanzwirbach is in possession of a skep of bees 133 years old. It is said the bees have never died out, nor has the comb ever been renewed.

I cannot trace the age of any of my colonies to more than twenty years. In 1881 I stocked up two peculiarly built hives, one a single story chaff hive the other a double-walled hive after German pattern. These two hives have had bees in them ever since and wintered them without exception exceptionally well each winter.

Our industrial hen is accused in the *Central Blatt* as an enemy of the honey-bee, having been caught eating them.

I believe this is a mistake. Fowls may learn to catch drones, but never workers, and I have never known but a few to learn the trick. All fowls learn to like drone-brood. When I had plenty of it I used to feed it to them and it may be they thus became accustomed to feeding on matured drones. It was at this time that I observed young, nearly grown cockerels picking up drones as they alighted on the boards. Sometimes these venturesome hunters "all of a sudden" made haste to get under cover somewhere, but they were seen again at their old game afterward as long as the drones lasted.

From the *Leipziger Bienen Zeitung*:

The name "Ehrenfels" is seldom seen mentioned in connection with bee-keeping in our American books or bee-journals; and yet, Baron von Ehrenfels was the greatest bee-keeper of his time, having lived during the closing part of the eighteenth and the beginning of the nineteenth centuries. His death occurred in 1843. He was an Austrian. The one aim this great man had was to make bee-keeping the property of his people. He sought to increase the wealth of his people by inducing them to engage in bee-keeping. He was always trying to instruct them and to disseminate bee-knowledge generally. He gave much money and time to this work; established apiaries for public instruction. His apiaries threw off handsome revenues, so much so that the writer in the *Leipziger Bienen Zeitung* says: "No man living is as successful with bees as Ehrenfels has been." If a locality did not furnish a sufficiency of honey-producing plants, he spared no pains to change the conditions for the better. On one of his possessions in Ragelsdorf, it is said, bees could not make a living. He went to work zealously, had thousands of willow trees planted around his meadows, also locust-trees, poplar, horse-chestnuts, basswood trees etc. In his many gardens gooseberry bushes and similar shrubbery was planted extensively; white clover took the place of other grasses, and other changes were made. The result was, while in 1802 bees would starve, some years later two hundred colonies of bees were kept at a profit, showing what may be accomplished in the way of improving bee-pasturage. As a lasting monument, Ehrenfels laid down his teachings in book-form under the title: "Bee-keeping, based upon Theory and Practice." The book speaks well for the author and is in the main correct. Unfortunately, it cannot any more be procured, sharing this fate with the original Langstroth. The name of Ehrenfels must for all time be placed alongside of Dzierzon, Langstroth, Berlepsch, Vogel and a few others.

Some years ago the Caucasian bee was talked of in our journals. Nothing, however, has been said of late. The director of the silk station in Tifilis, Russia, says in regard to this bee, that it is not of a distinct race, but is identical with the Italian bee. The yellow variety is to be found in the south part of the Caucasus, from there clear into Persia; the gray variety in the north part. Nearly always some gray bees are found in the yellow colonies. The Caucasian bee has the name of being the most gentle bee in existence and little inclined to swarm.

The idea that bees consume more honey during cold winter weather than milder weather is very strongly opposed in several German bee-periodicals.

The case of poisoning bees in Bavaria, as reported in April number, AMERICAN BEE-KEEPER, page 63, has been carried to the highest court. Sentence has been reversed again, and it seems justice is to prevail after all.

Naples, N.Y., April 20, 1901.

* * *

"East Friesland, a province of Holland, containing 1,200 square miles, maintains an average of 2,000 colonies per square mile."

Honey and Beeswax Market.

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

KANSAS CITY, MO., May 20.—The entire stock of honey at this market is cleaned up. Beeswax is in good demand with light supply, at 30c.
HAMBLIN & SAPPINGTON.

NEW YORK, May 22, 1901 —There is little if any stock of comb-honey on this market at the present moment, and the demand is very slight, indeed. Market prices rule as follows: Fancy white, 15c.; No. 1 13 @ 14c.; No. 2 white, 11 @ 12c.; mixed and buckwheat 10c. Beeswax, 28c. Extracted honey of all kinds is ruling at low prices with little, if any, demand. FRANCIS H. LEGGETT & CO.

CHICAGO, May 20.—Market is nominal in most all lines. A little comb sells at 15 @ 16c. for choice white, with the amber and dark grades ranging from 2 to 5c. less. No movement of any consequence in extracted. All dealers seem to be expecting a lower range of prices. A little fancy white clover and basswood sells at 7 @ 8c., depending on flavor, quality and quantity taken; amber, 6 @ 7c.; dark and buckwheat, 5 @ 5½c. Beeswax steady at 30c. R. A. BURNETT & CO.

BUFFALO, May 20.—The market is very quiet at present, with light supply of fancy and fair of dark. Fancy comb honey sells at 14 @ 16c.; dark, 8 @ 12c. Beeswax is in fair demand, with light supply. Price, fancy, 26 @ 28c. A little really fancy honey would do well, but dark is not wanted.

BATTERSON & CO.

LITERARY NOTES.

THE SATURDAY EVENING POST for May 25 contains the first installment of a great serial story by Merwin-Webster, author of The Short Line War, entitled. Calumet "K," a Romance of the Great Wheat Corner. Wheat speculation, love and business are the motives of this great story.

THE COSMOPOLITAN for June is more than usually strong in fiction. Ian MacLaren, Richard Le Gallienne, H. G. Wells, Tudor Jeuks, Egerton Castle and O'Neil Lathom are some of the writers who make this number very interesting.

OUTING for June is a well rounded number; besides numerous up-to-date departments some of the headings read: Theodore Roosevelt, the Sportsman and the Man; The Out of Class Room Undergraduate; The New Era in American Lawn Tennis; Ascent of the Grand Teton; Sport of a Game Stripped Land; The Care of a Dog; and many others equally eye catching and timely.

THE LADIES' HOME JOURNAL for June gives an attractive page of pictures about The Girls of Wellesley and Bryn Mawr. The articles and departments, as well as its artistic features, are well up to its standard, which is saying a great deal.

* * *

"The whole system of modern bee-culture is a transgression of nature's laws, so-called."

SECURING THE HONEY CROP.

BY L. E. KERR.

BEES in this locality have come through the winter in fairly good shape, and since January 28th have been finding enough honey to keep them on a gradual upward tendency, as regards strength and, to some extent, stores. The weather has been very warm, the bees hardly losing a day; and in consequence the time for giving surplus room apparently is approaching very rapidly. The flow begins here the first of April and continues till November. It is not spasmodic, but comes in a slow, steady stream for about seven months, enabling a wide-awake bee-keeper to secure from one hundred to three hundred pounds of comb honey, of first-class quality, as an average yield per colony.

With such slack flows we find bate-sections a very important factor in dispeling the bees' objections to entering the supers. We save all unfinished sections for baits, but never have a sufficient number of them, and resort to wide frames in the brood-nests for finishing our supply. The baits thus obtained are far superior to empty combs and we would not hesitate to fill supers entirely with them if we had them. We usually put first two rows of old baits and then one or two rows of the new ones on one side of the super only. We have seen bee-keepers put one or two baits in each corner of a super with only starters of foundation in the center with the supposition that it would help keep the outside sections going on with the rest; but we prefer putting them all on one side and generally succeed in having work begin on them and then move steadily through to the other side, the bees filling everything solid as they proceed. Whether or not it may be so, in our estimation fresh foundation is better than old, and so we forbear putting it in the sections till they are ready to go on the hive. Other things we do as much as possible during winter, but like the foundation fresh. With a good machine we can put in foundation so rapidly that we do not begrudge the little time it takes even during the busy season.

With a honey-flow lasting seven months many would naturally suppose that the matter of keeping the colonies in shape to do the best work would be no little item; but really all we have to do is to keep good queens and leave them alone, and they remain strong themselves, with no swarming except during April and May.

Hurricane, Ark.

["From one hundred to three hundred pounds of comb honey of first-class quality, as an average yield per colony," is truly wonderful. In this day of small yields, it is refreshing to read of such a locality. Mr. Kerr's idea, as to the superior finish and quality of comb-honey where the bees have seven months to devote to the work, is something entirely new and quite at variance with the experience of nearly, if not quite all, experienced producers of comb-honey. We should decidedly prefer a location where all the finish and trimmings were applied in ten days. It is a magnificent theory, indeed; but we have never learned to admire "a slow, steady stream," when "first-class" comb-honey was the object.—Ed.]

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Purchasers of queens prefer something new; vendors prefer the new prices.
—James Heddon, 1885.

MR. W. H. PRIDGEN.

[See frontispiece].

Our readers will note this month that we are presenting a new portrait of Mr. W. H. Pridgen, the "queen crank" of North Carolina. Mr. Pridgen has thus styled himself in his advertisements; and, from a rather extensive correspondence with him for several years, we incline to the belief that the appelation is well applied. We should not, of course, care to have it get out that we consider him a genuine crank, although nearly all of the progress in queen-rearing has been made by just such enthusiasts. Mr. Pridgen's bee-keeping experience covers a period of twenty-four years; while the past ten years or so, have been devoted to scientific experiments as a queen-breeder. He was the first to introduce wholesale methods of manufacturing artificial cell-cups; and as the originator of the system of transferring cocoons to the cups by means of a hollow-ended stick, his name has spread throughout the bee-keeping world. In our opinion nothing in the way of a nursery cage has ever been devised which, for practical utility and genius, excels the one invented by the subject of this brief sketch. The confining of bees for cell-starting, we believe, is another most valuable development of Mr. Pridgen's experiments. In fact, there are too many kinks and short cuts of his devising to permit of their being enumerated here. Suffice it to say that no name in the queen-rearing profession stands higher to-day than that of W. H. Pridgen, and we believe the popularity which he has achieved to be honestly acquired and well merited. As with the other pictures recently published in these columns, the one of Mr. Pridgen is the latest thing out and just a little ahead of anything published in any other bee journal.

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How many never think who think they do.
—Jane Taylor.

FEEDING FOR HARD WORK.

BY BESSIE L. PUTNAM.

SUGAR is cheaper than honey; and the wise bee-keeper understands that there is profit in building a strong colony that is ready to go to work in force when the first honey-flow comes. If undisturbed, bees show little activity until there is something on which they can work to advantage: but if fed in spring, they at once assume the duties of active life by rearing brood in large numbers. Some may say, that means swarming, and we have as many swarms as we want. But this swarming habit can generally be largely kept in check by supplying plenty of section room for storing honey.

A simple method of feeding bees is to fill a small-sized baking powder can half full of granulated sugar, and to this add an equal quantity of water. Cover with several thicknesses of cloth; over this place a small piece of board and invert in an empty saucer on the top of the brood-frames. This furnishes a constant flow of sweets from the cloth, sufficient to supply all demands, yet never to flood the inhabitants of any part of the hive. This food must be given daily, when commenced, until the honey-season opens.

Since there are days in early spring in which it is not advisable to open the hive, some prefer to feed candy instead of sugar and water, as this can be given in quantities that will last two or three days at a time. To make it, moisten granulated sugar with a little water and cook until it "hairs." Test a small quantity by taking it out and stirring it constantly until cold. It should be opaque and not so hard but that it is easily broken. When done, take from the fire and stir constantly until it is of the consistency of thick cream. Then pour into buttered tins to set. The stirring causes it to form grains, and it is less liable to be waxy, a quality which cannot be tolerated in bee-food. It also renders the product soft and easily broken, yet not so soft as to be sticky. A little practice will enable one to approximate the ideal; and this ideal can be made a clearer mental conception after feeding once or twice. For convenience the cakes should not exceed one-half inch in thickness. Lay pieces of this candy on top of the brood-frames and the bees will soon find and appropriate. Use granulated sugar, and never feed candy that has been scorched.

BEES AND FRUIT.

Periodically we are regaled with the depressing announcement that bees are a positive nuisance to the fruit-grower in that they feed upon and destroy his fruit, the grape being especially subject to their devastations.

Scientists have proved repeatedly to their own satisfaction that a bee will not, can not mar even a grape unless the skin has been previously broken; then it improves the opportunity to feast upon the juice; but since imperfect fruit is not saleable, the extraction of their juices represents very little damage, after all. If a bird pecks a skin and breaks it, the bee feasts upon the remnants. But maybe it deserves to be served.

In fact, the bee is second to the bird in its assistance to the horticulturist. Nature is as averse to inbreeding in plant life as is the progressive farmer among his domestic animals. To thwart it, she employs a number of skillful devices, none more efficient than that of cross-pollenation by insects. In brief, a bee alights on a blossom for nectar; but some of the pollen naturally clings to its downy coat. This is pretty sure to come in contact with the stigma of the next flower visited; and thus the work of cross-fertilization is accomplished, thereby resulting in more fruit and that of a better quality. The origin of one-sided apples is thus graphically described by Selina Gaye in *The Great World's Farm*: "The calyx of the apple-blossom is a tube which spreads out at the top into five leaf-like divisions. Inside the tube, and joined to it, are the ovaries, which together form the horny core. When the stigmas are all properly dusted with pollen, each ovary, with its two pips, begins to grow; but, if nothing else grew there would be no apple, only a horny seed-vessel, the only eatable part of which would be the seeds. But the calyx enclosing the core grows too and so does the top of the stalk from which it spring: and it is these which together form the apple. If, however, one of the stigmas be by chance left without pollen, then the ovary belonging to it, with its two pips and the part of the calyx next to it, does not grow, and the apple is misshapen."

Thus it is that bee and blossom were designed to live in harmony, each giving aid to the other; and the more closely the demands of both are studied by scientists, the finer and more beautiful appear the mutual bonds.

Harmondsburg, Pa.

OUR CORRESPONDENTS

Marchant, Fla., May 10, 1901

FRIEND HILL: I am the one to have "phits." Our bees are swarming about as much as one would expect in an apiary of this size; but fully 90 per cent. of all the first swarms are led by a virgin queen, showing that the old queen had been superseded. Now, why this superseding? All our queens were raised last year, so age is not against them. All queens were extra prolific, so we can't say it was because of failing powers; yet, the superseding goes merrily on with from seven to ten solid frames of brood per colony.

In your foot-note to my article on page 92, you say "the presence of laying workers betokens lingering hope." I am afraid I will have to differ with you on that point. I have thus far introduced three laying queens to a colony containing laying workers and in each case the queen was accepted and permitted to lay eggs from two to four days, and then killed. Queen-cells were then started, and, before ready to seal, were torn down. I have run in two virgin queens that were accepted and permitted to become fertile and then killed. The strength of the colony has been kept up by giving frames of hatching brood, so there was and is no lack of nurse bees. My trouble is not an isolated case, as others are reporting the same conditions, but have not carried matters so far as I have. As I said in my former letter, it is a condition, not a theory, that confronts us. Of course, it is easy to offer a theoretical explanation, but it does not fit the conditions. I have tried everything I know or can think of, and yet it beats me. Last season I had one or two cases; but this season it has been epidemic with me as well as others. We are busy extracting, and will have a good crop; so I don't see as our trouble has affected the amount of honey gathered. I suspect that after the season is over, our trouble will cease; and there will be no trouble in re-queening the apiary, which will be done from one of the best imported queens that we could buy.

Very truly, M. W. SHEPHERD.

[It is rather humiliating, but we shall have to confess that we "don't know" what is the cause of Mr. Shepherd's difficulty; and would suggest that he ask Dr. Miller. It appears to be simply a case of "gone crazy," and our experience has not encountered a case of this kind. If any of our readers have ever met a similar condition of affairs, we should be pleased to have them express an opinion in regard to its cause and treatment.—EDITOR.]

Plainville, Conn., May 6, 1901.

EDITOR HILL, Dear Sir: I am almost certain that my case of bee-paralysis was a genuine one, as the bees died in such numbers before the entrance that they could be taken up by the handful; and I finally took them away because they gave off an odor, when damp, that could be smelled two or three feet away. I noticed, also, that the way in which they died was exactly as Mr. Heddon says they do with bee-paralysis, and as Mr. Cheshire says they do with Bacillus Gaytoni. I had read somewhere before that many bee diseases could be cured by changing the queen, so I bought an Italian queen and gave her to the colony on the 7th of June, and by the middle of August the black bees had disappeared and with them all traces of the disease. Four weeks later, I could not lift that hive, as the bees had put more than one hundred pounds of honey in it.

To simply remove the queen from a colony affected with bee-paralysis, and allow the bees to raise a queen from their own brood, could not be expected to work a cure; or at least not more than a temporary one. The queen that we give the diseased colony must come from one that you know has a young and vigorous queen, and preferably an Italian.

It is a notion with me that a young Italian queen from good stock, is a panacea for all bee diseases. Many a colony dwindles in spring, or is robbed during a dearth of honey in summer because their queen lacked spirit, either from age or some other cause. If you would see the influence of a queen on her bees, take the mildest colony that you have and also the most irritable, and exchange their queens and note the effect thirty-six hours after the queens are liberated.

Yours, D. B. NORTON.

Branford, Fla., May 10, 1901.

EDITOR AMERICAN BEE-KEEPER, Dear Sir: I have received a sample copy of your excellent paper, and am very much pleased with it. Herewith please find 50c. stamps, to cover one year's subscription. I don't see how you can give so much for so little.

Wishing you continued and increased prosperity in your journalistic enterprise, I remain,

Yours truly, A. D. PUTERBAUGH, M. D.

BEE-PARALYSIS—STINGS FOR RHEUMATISM—RENDERING WAX.

Hawks Park, Fla., May 9, 1901.

DEAR MR. HILL: To me, as to Mr. Norton, page 94, it "seems strange that Mr. O. O. Poppleton should suffer as he has from bee-paralysis." Is it absolutely true that the disease is so much worse in the South than further North? I ask for information, for I do not know that this is so. Outside of Mr. Poppleton's experience and that of one or two others, I have never known it to do very serious harm. I have never had more than four or five cases at a time in my apiary, and these have apparently recovered as soon as the summer flow of honey commenced, in May. I have had but one case for several years, though I have taken no measures to eradicate it. I know of none to take, except as given by Mr. Poppleton in his writings on the subject. The only case I had last season I changed to the place of a healthy colony and put the latter on its old stand to see if the incoming bees would communicate the disease. They did not do so, and the diseased colony was apparently cured and gave quite a crop of honey. I noticed about ten days ago that there were a few shiny bees in the same hive and since then a few have died in front of it with symptoms of the old trouble. I wish that the southern bee-keepers would report to you on this trouble, so that we may learn whether the South is really entitled to be called the home of bee-paralysis.

If Dr. George Mackie is correctly quoted on page 91, he is surely wrong. I was instrumental in curing almost instantly, and for at least two years (have not heard from the party since the expiration of that time) one of the worst cases of rheumatism I have known, after months of suffering and many dollars had been spent in seeking a cure through Chicago's best physicians This case I reported through Gleanings some years ago. It is but one of several that I have known in which there could be no possible mistake as to the certainty of the bee stings having effected the cures. On the other hand, I have known cases that were not effected in the least, so far as I could see, by similar treatment.

I am glad the processes of rendering wax from old combs are being improved upon, for in the past there has been a great waste not only of that readily saleable product but of patience as well. If we can learn to save both—sell the former and keep the latter—great progress will have been gained. Yours sincerely, W. S. Hart.

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"Think not in circles, but straight ahead."

CLIPPING QUEENS' WINGS—SUPERSEDING, ETC.

Several Suggestions Which, if Heeded, Will Tend to Promote Desirable Characteristics in Our Stock.

BY DR. C. C. MILLER.

IN giving the reasons for clipping queens' wings, G. M. Doolittle gives one item that he says is rarely spoken of. I think he might have said "never" in place of "rarely;" at least I don't remember ever to have seen mention of the greater ease of finding a clipped queen. I've known it for years, but I wasn't smart enough to tell of it.

In this connection it may be well to mention the difference between cutting one or both wings on one side. If you cut off only one wing, the large one, the queen is just as safe from flying as if all four were cut, and it scarcely spoils her looks in the least, for at a hasty glance you cannot see whether she is clipped or not. Just for the very reason, however, that cutting one wing changes her appearance so little, I want both wings on one side clipped, and left pretty short at that. One of the first things in overhauling the bees, somewhere about the first of May, is to make sure that every queen is clipped. It frequently happens that when you lift out a comb you will see the queen on the next comb, while it is in the hive, but only for an instant, for she immediately passes out of sight, and it may take some time to find her again. Both wings should be clipped, so that in that short glance you may at once determine whether she is clipped or not.

L. E. Kerr, on page 63, introduces a matter that is worthy of consideration: "Shall honey-producers buy or rear their own queens?" A good many questions thrust themselves forward that have a bearing upon the whole subject of queen-rearing, and they should all be well considered before coming to a hasty conclusion. Should a honey-producer do much in the way of furnishing queens for his colonies, either purchased or of his own rearing? There are some who think it best to put a certain limit upon the age of queens, furnishing a new one to replace those of a certain age, say two years or less. But a large number of the veterans say it is best to leave to the bees the matter of supersedure. G. M. Doolittle, in *American Bee Journal*, strongly endorses J. B. Hall when he says: "I want longevity in my bees; I want that first and foremost; that is why I don't want to replace my queens every year, because if I do, I must kill them; and I don't know what to kill. If I keep them three or four years, and they have done good work for four years, wintered well and given me comb-honey in good shape, that is the kind of queen

I want to rear others from." Mr. Doolittle's word has weight, and especially in a case of this kind. As a queen-breeder, if he consulted merely his own interests, he might be expected to say: "By all means, replace your queens every two years, if not every year; and I'm ready to furnish the young queens to replace them." But Mr. Doolittle is an honest man.

It is undoubtedly cheaper to let the bees themselves do the superseding than to replace queens with others, either home-reared or purchased; but the wise bee-keeper will still keep the whole matter under his control by suppressing all poor stock and encouraging the good. From time to time he will seek to improve by introducing fresh stock from the best queen-breeders; but he will not stop at that. He will keep tab on the performance of every colony, and be able to tell you just what the progeny of each of the queens did during the preceding year, or years, of their lives; and knowing this, he will know from which queen he is to rear. This matter of keeping a careful record of the performance of each colony is at the foundation of building up an apiary that is to bring in the best returns. How many bee-keepers do you suppose keep any such record?

If you have never given the matter any attention, perhaps it may be well to recall some facts that you have probably noticed without carefully considering their bearing. You may have noticed that, as a rule, the colonies most given to swarming have not been among the best for storing surplus, and that those which have made the best super records have not wasted much time in swarming. If you have paid no attention to this, but have left the bees to run things their own way, the bees most given to swarming are the ones that have given you increase almost entirely, while your best colonies have given no increase. Don't you see that such a course, continued indefinitely, will inevitably result in run-out bees? By keeping matters under your own control, you can make the current run the other way.

If you buy queens that are always the best, you will make sure to keep up your stock; but if you replace with a purchased queen every queen of a certain age, it will cost you much more than to allow the bees to do their own superseding. If queen-breeders and honey-producers will all work together for a constant improvement of stock, it is difficult to estimate what the result may be.

Marengo, Ill., April 26, 1901.

* * *

"Let us go carefully over the ground and see if the German bee has not some traits that the honorable bee-keeper is bound to respect."

ANNUAL ADDRESS,

Delivered January 9, 1901, at Geneva, N.Y., before the Convention of the New York State Association of Bee-keepers' Societies, by President W. F. Marks.

FELLOW Members, Bee-keepers and Friends: Following the usual custom I will, with your permission, briefly run over the events of the past year, as they apply to our industry and to this Association. The first thing that required our attention was to secure a liberal appropriation to enable the Commissioner of Agriculture to suppress diseased brood. Although no one representing this Association went to Albany, the whole influence of the several societies was used to aid those bee-keepers who did go. The second thing that required our attention was the amendment to our spraying law. As originally introduced, this amendment had some bad features; but, as finally amended, believing that the proposed experiments would uphold and strengthen the law, it was allowed to pass. The results of these experiments of spraying in bloom have not yet been published; but from what I can learn, they do not favor spraying at that time. Prof. Beach will address you this afternoon and give you the results of these experiments. It is rumored that an attempt will be made again this winter to repeal the spraying law. I do not know how true this may be, but it stands you all in hand to be on the alert. "Forewarned is forearmed." I would ask each of you to see your senators and assemblymen and ask them to be on the look-out for any such attempt and to kill it should one be made. This may be important; do not forget it.

Our foul-brood law, chapter 223, laws of 1899, grows in favor as it is better understood. Since our last meeting two more inspectors have been appointed—Mr. W. D. Wright, Altamont, and Chas. Stewart, of Sammonsville—who, with Mr. West and Mr. Stevens, previously appointed, make four inspectors. This should be a double source of gratification to you; first, to know that the law is being promptly and vigorously enforced; secondly, that it was chiefly through the action of this Association that the law was so promptly enacted.

PRESIDENT W. F. MARKS.

This meeting closes the second series of bee-institutes extending through the State by and under the direction of the Bureau of Farmers' Institutes, but conducted by the several societies in their respective localities. There would have been more of these institutes if there had been more local societies to conduct them. The Bureau of Farmers' Institutes appreciates and approves of the work our Organization has undertaken, and has cheerfully aided us, as the facts show. I only wish the bee-keepers of this State could be made to realize what the Bureau is doing for them, and is willing to do, providing they will turn out and show by their presence at these meetings that they appreciate and are deserving of such substantial recognition. These bee-institutes have attracted the attention of the general public and have aided in no small degree to impress thereon the importance and value of our industry as an aid to agriculture. Selfishness is the rule rather than the exception; the farmer and fruit-grower must be made to realize their dependence upon the honey-bee. This can only be accomplished and maintained by a continual repetition of established facts. We should have special objects in view for our bee-institutes: and whatever else may be taken up, this one should be the leading object of every institute.

Since our last meeting, Fulton and Montgomery Counties have joined this Association and other counties have signified their intention of doing so. The value of organization has recently been demonstrated in Orange County, this State, when the legal status of the honey-bee was at stake. The organization came to its defense and it was triumphantly acquitted; in fact, its victory was complete.

A few weeks ago the Common Council of the City of Rochester tried to pass an ordinance prohibiting the keeping of bees in that city without the consent of the property holders within two hundred feet. The National organization came to the rescue and the ordinance failed.

Local societies may, and in most instances have, I believe, joined the "National," thus becoming a factor in that Association. I heartily believe in the value of local associations. When we want anything of the Senator or Assemblymen from Cayuga County, we ask it through the Secretary or President of the Cayuga County Society; if we want anything of the representatives of Seneca County, we ask it through the officers of the Seneca County Society; if we want anything from their Congressman, we ask for it in the same way. The request coming from a home organization receives due consideration at the hands of the Congressman, Senator or Assemblyman; when, if it had come in the first place from the State or National Association, each representative realizing that he was interested and responsible only in a general way with the whole of them, it would have received but scant, perhaps not any, consideration.

One object of the Association is to encourage the organization of bee-keepers' societies in every county in the State. I urge you, one and all, to persevere; do not wait or expect your officers to do it all; you should help, it is a duty you owe the organization, your pursuit and yourselves.

The enforcement of the law prohibiting the manufacture and sale of adulterated honey is a matter that should receive our attention sooner or later—and the sooner the better. This is known as a pure-food law, and it is one of the duties of the State Board of Health to enforce it. I saw a statement in *Gleanings* for April, 1900, stating that a "new enterprise had started on the East side of New York in which they were adulterating honey by the carload; that twelve carloads had been turned out in sixty days." I immediately wrote the Secretary of State Board of Health calling his attention to the matter, but never received any reply. I wrote him again recently on the subject requesting an early reply. I have received a reply to this letter, dated January 3d, which I will lay before you. Judging from what I have learned, the State Board of Health has never made an attempt to enforce the law; hence the Legislature declines to vote it any appropriation for the purpose. It is the duty of the Department of Agriculture to enforce that portion of the pure-food laws relating to butter. The Department has shown its willingness and ability to enforce this law; and I would recommend that the enforcement of the law relating to adulterated honey be put under its control, if the Department will consent, and that prompt and necessary steps be taken to accomplish this result.

This Association is entitled to one delegate to the Pure-food Congress, which meets at Washington soon; do not neglect to take advantage of this opportunity to be represented at that Congress.

I would again respectfully call your attention to the Pan-American Exposition, to be held at Buffalo this year. I trust you will aid in securing and making a creditable exhibit in the Apiarian Department. It is also proposed to hold the annual convention of the National Bee-keepers' Association at Buffalo, during the Exposition; if so, I would recommend and urge you all to attend that convention. Let us give it an attendance that will be creditable to this, the Empire State.

One object of this meeting is to confer and lay out work for the coming year. It is your first duty to do this in order that your officers may act promptly and intelligently upon the many questions facing us, knowing that they voice your views on these questions.

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The busy bee is now engaged
In storing tons of honey;
And man, anon, will busy be
In turning it to money.
—Exchange.

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ARTIFICIAL SWARMING.

A Scientific Analysis of Proper Methods.

BY ARTHUR C. MILLER.

THE wisdom or unwisdom of practicing artificial swarming depends chiefly upon your ability to observe the many conditions necessary to success. The conditions are in the order of their importance: Population of the colony; its size and constitution; relative proportion of sealed and unsealed brood; present or prospective honey-flow. These may be analyzed as follows:

Population of colony, is it medium, large or very large? Do young or old bees predominate, or what is their relative proportion? If the colony is large to very large, seldom any effort need be made to add to the "swarm" the young bees as they hatch from the old combs. This, however, is modified by the nearness of the honey-flow and its probable duration. If the flow be distant or protracted, it is best to follow some plan which will unite them. If the colony is but medium in size it is decidedly an advantage to give to it all the young bees possible; but this, too, is qualified by the honey-flow.

Do young or old bees predominate? By young bees I mean those under three weeks from the cell. If old bees predominate, the forced swarm will not be a success unless the flow is short and sharp or is far enough distant to permit the brood in the old combs to become available workers. But with such a colony 'twere better not to swarm it until it is in proper condition; and then the honey-flow may not coincide.

Second. Relative proportion of sealed and unsealed brood. If the combs contain relatively little unsealed brood, all, or nearly all, the bees may be put in the swarm and the combs given to some nucleus to care for; but if the unsealed predominates, many bees must be left to care for it; and as these are necessarily young bees, their loss to the swarm is of considerable importance, particularly if you are producing comb-honey.

Third. Honey-flow. Is it present or to come? Is it of long or short duration? If it is present or close at hand, unhatched brood is of no immediate value and all dependence must be placed on the size of the swarm and its composition. If the honey-flow is short and sharp, this is of special importance. If the honey-flow is of long duration, say four or six weeks, any method of artificial swarming to be profitable, must be so arranged as to give to the swarm all of the young bees as soon as possible after they hatch.

Such is a brief outline of the general conditions. The procedure of artificial swarming the bees is about as follows: When it is decided to "swarm" a colony, remove it from its stand and put in its stead a hive containing frames with starters of foundation; and if the honey-flow is "on," place over this a queen-excluding honey-board and the sections or extracting super. Let me remark right here that if you are producing comb-honey, and if pollen is abundant, it will be well to put a comb in the body of the hive to catch the incoming pollen. Next, take the combs from the old hive—an outside comb first as it is the least likely to have the queen—and shake the bees from them down in front of the new hive. Don't bother to look for the queen, just shake the combs free from the bees and stand them out of the way. Complete the operation by shaking the bees from the body and bottom-board of the old hive. There is little danger of injuring the queen, for after the first frame has been shaken there is an ample cushion of bees for her to drop upon. The combs containing brood are scattered among nuclei or given to some colony selected for that purpose.

Another plan is to proceed as before up to the point of shaking the bees, then find the queen and place the comb she is on in at one side of the new hive, then the excluder and super on top and above that the old brood-chamber, there to remain for ten days, after which all bees are shaken down in front of the hive and the brood disposed of as before. When this latter plan is used, it is best that the swarming be done at least a week before the honey-flow. Inexperienced persons must be reminded, when trying this latter way, especially during very hot weather, to give some ventilation to the upper brood-chamber. I often place an enameled cloth mat over the super before I place the old hive on top. I turn one end or corner of the mat back sufficiently to give the bees ready passage and then insert a chip or a nail under the opposite end of the upper brood-chamber. This gives sufficient ventilation, the bees cannot get out there and the super is not perceptibly cooled.

Perhaps the most important element in making artificial swarms is in deciding when to do it. It can be done whenever honey is coming in; but 'tis only profitably done at the beginning of or during what we commonly term the honey-flow; *i. e.*, when a surplus is being stored. The bees may prepare to swarm naturally before we really wish to make swarms, in which case we must make the best of it, and anticipate their action.

Once in a while these forced swarms decline to stay "put," and then it is necessary to give them a frame of unsealed brood. By proper combination of two or more colonies, grand swarms may be made, which will yield wonderful quantities of honey from short and heavy flows. Where the flow is slow and protracted, or where one has to depend on a succession of short crops. these combined swarms are very apt to prove a loss. They yield well enough while they last, but they don't stay big.

There is almost no end to the variation of the foregoing plans, and each person should study the conditions of his own locality before plunging into any system of forced swarming. Whether it is easier or more economical to allow the bees to swarm naturally than to control them, is a question, the answer to which depends upon the personal and local circumstances, and each individual must decide these for himself.

Providence, R. I., May 1, 1901.

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"The age of worker bees varies greatly with the season of the year; from one to eight months."

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THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY BY

THE W. T. FALCONER MANFG. CO.

H. E. HILL, - - - - - EDITOR.

Terms:

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☞ Matters relating in any way to business should invariably be addressed to

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☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

Investigate thoroughly before consigning the product of your labor to strangers.

June, the month of flowers, the clang of the extractor, the hum of swarms, and buoyant spirits.

The generous response to our request for contributions has enabled us to greatly reduce the editorial space, and turn it over to more capable writers.

Mr. J. H. Martin, the inimitable "Rambler," now has apiaries in both Central and Southern California, and writes. "I have learned that this is the only way to run bees successfully in this State."

The most interesting question to Colorado bee-keepers at this time appears to be foul-brood. Colorado's numerous and extensive apiaries afford a great field for its spread; though its inspectors are keenly alert to the situation.

A propitious outlook for a honey crop is reported from many localities throughout the Union. As for Florida, the outlook at this writing (April 15th) is very favorable—for one of the smallest crops within the history of the business.

Michigan has secured the passage of a joint bill which now gives that State a sort of hybrid foul-brood law. From the *Review's* editorial comments, we are inclined to regard this somewhat in the same light as all "combined" devices—better than none, perhaps, but far short of the actual requirements.

THE BEE-KEEPER has recently received very kind and complimentary mention in the editorial columns of the *Bee-Keepers' Review* and in *Gleanings in Bee Culture*, two of the world's leading apicultural publications. We are not unappreciative of such courtesies.

In the *Austrial Culturist*, the official organ of the National Beekeepers' Committee of Victoria, Australia, under date of October, 1900, "a plentiful supply from Jamaica" is given as a cause of the dull market for honey in Europe. Geographically Jamaica is small, but it is making itself known in the apicultural world.

Smoke is a necessary commodity in the apiary and is sometimes very essential to the comfort of the operator; but there are times when its use should be strictly avoided. In the treatment of a case of robbers, or in handling swarms, a spray of water is safe and usually effective; while a blast from the smoker is liable to result in the loss of a swarm or colony.

The recent discussions in these columns relating to paralysis, has given rise to much inquiry as to whether it is a fact that the disease is so much more prevalent in the South than in the northern countries. How many of our readers in the Northern States have had experience with this malady? Personally, we do not remember to have seen a case of genuine paralysis in the North; while we usually have more or less of it each season here in the far South.

Last season we used a large number of blocks in which to have queen-cells built, and reported that in no case had a cell been destroyed when introduced in these wood-protected blocks. This plan is described on page 227 of THE BEE-KEEPER for December, 1900. This season we have had a number of cells attacked and destroyed from the base, and would, therefore, advise those who have the blocks in use, to protect the base by placing a small piece of tin or wood over the opening at the top, when placing the cell in a new colony.

E. F. Atwater, in *American Bee Journal*, says he has had experience in using both the Doolittle and the Pridgen methods of transferring larvæ to the artificial cell-cups, and that he prefers the Doolittle plan; giving as the chief reason his ability to transfer the tiny larvæ without mutilating the comb. It is not always possible to induce the breeding queen to lay in "any old comb" which has been hacked and cut before, just at the desired time; hence, the frequent necessity of resorting to our valued brood-combs for suitable larvæ. We have for some time regarded this as the greatest objection to the practice of "baby, cradle and all" method. It's hard on the brood combs.

Among bee-keepers, the strongest incentive to the exercise of inventive genius is, undoubtedly, inexperienced enthusiasm. Visions of labor-saving, automatic and electrical devices usually haunt the mind of the tyro. It is not improbable that the study, which is a natural outgrowth of such conceptions, yields its indirect reward; and it is equally improbable that any phase of the profession shall ever be revolutionized through ideas incubated by the heat of inexperienced enthusiasm. Several years of study and practice will enable the beginner to better understand the deficiencies and to suggest means for their relief. A careful study of modern apicultural history—say back to 1852—is an excellent introductory course for the studiously inclined who seek to alleviate the needs of the present and to point out the errors of the old practitioner. Personal experimenting and the honest expression of ideas are always commendable; but the novice should not feel injured in the event of his ideas failing to elicit the enthusiasm of the staid old veterans.

CO-OPERATIVE QUEEN REARING.

As it now appears, Mr. J. H. Martin, of California, will be entitled to the credit of having afforded the sensation of the season, in bee-keeping circles. Mr. Martin's progressive idea is to have formed a co-operative queen-supplying emporium, with an extensive guaranteed patronage, and placed under the direction of an expert scientific queen breeder; thus reducing the cost of production to a minimum, and insuring stock of the very highest standard of excellence. This ideal queen-rearing apiary would be equipped with the latest and best of everything essential to the production of the best stock and to facilitate the production of its especial commodity at a cost greatly reduced over present methods. According to the *American Bee Journal*, Mr. J. F. McIntyre made an estimate that if a breeder could rely upon supplying a sufficiently large number of queens without having to advertise, the queens could be sold at fifteen cents each; while the members present at the convention of California bee-keepers, where the plan was launched, were willing to pay twenty-five cents. It was thought that upon this basis five thousand queens would be ordered by the bee-keepers of only two counties of that State. Editor York evidently has "an eye to windward" when he enquires: "Can good queens, such as Mr. Martin's paper calls for, be bred for twenty-five cents each?" This is a question that will agitate other minds before the plan is undertaken. The *Journal* also states that the bee-keepers present at that convention were willing to place an order for one thousand queens at twenty-five cents each. It is not improbable that, having reasonable assurance of good stock, almost any other small body of honey producers would evince an equal amount of business sagacity. We would do naught to discourage such a sublime conception. We have great faith in the possibilities of co-operation; but our prayer that Mr Martin may live to see his plan in successful operation, we confess, is not backed by the implicit faith which we should be pleased to entertain.

$200 QUEENS.

An editorial on page 97, May number, referring to fictitious values placed upon queens for advertising purposes, etc, has elicited the attention of our esteemed contemporary, *Gleanings in Bee Culture*, to the extent of a solid page in defense of very high-priced stock, and making use of high valuation in advertising. Our remarks were not of a personal nature, at all; though Editor Root devotes his attention largely to the defense of his own action, in placing a valuation of two hundred dollars upon a breeding queen, and advertising the fact. Mr. Root evidently thinks the practice legitimate—and perhaps it is—though we cannot but feel that it is, in one way, a gross deception, and a practice which will work serious evil to the pursuit. It is an insignificant assertion, denoting no good qualities whatever; yet capable of universal imitation, without restriction or restraint; while it extorts thousands of dollars from the pockets of the inexperienced. What ambitious beginner would not glory in the ownership of a queen, the daughter of a two hundred-dollar mother? The beginner who would not sell his clothes and subsist for a month on the ecstasy of anticipation, in order to acquire such an honor, is not the right material for a successful bee-keeper. As Mr. Root intimates, there is no doubt that a certain queen may be of such, or even higher value in fact, to an extensive breeder; but it is not plain how such could be the case with a queen regarding which it is admitted, "It is hardly probable that even a large percentage of the queens from long-tongued stock will be duplicates of their mothers." It is difficult to see wherein the great value could exist, even in the case of an extensive breeder, if the "high-priced" mother was of the kind which do not duplicate themselves in a large percentage of cases. The exceedingly high prices placed upon other stock is cited by our contemporary as parallel examples of this deceptive and unjust practice. Now, does any reader of this journal know of an instance where such extraordinary value—being twenty times higher than prevailing prices for the very best stock known heretofore—has been accidentally discovered, in an individual case? Without much personal knowledge as to what might have transpired among breeders of other stock than bees, we will venture the prediction that, if such a thing ever did occur, the value rested in the animal's characteristic of imparting its merits to its offspring—and then the abnormal value would be largely retained and monopolized by the owner. And would he, without having paid such a price, or refused a *bona fide* offer of such a price, proclaim the merits of this recently discovered animal by a string of figures? What could be more ridiculous than to attempt to measure and express merit in stock by dollars and cents? One thing not readily understood is this: What power impelled the several fortunate owners of such valuable queens to rise respectively to $50, $100 and $200; and by what rule were these excessive valuations so permanently fixed at the respective altitudes? If not governed by the anticipated result of such an advertisement on one hand, and modesty upon the other, what power or rule decreed the exact position each should occupy upon the scale, and there bid it rest? Mr. Root expresses the opinion that if we had given this matter sufficient thought, we would never have published the paragraph in question. We beg to assure our contemporary that that paragraph was not hastily penned, but is the outgrowth of very serious and honest thought. We believe the practice to be working harm to the interests of the pursuit we are pledged to serve; and "though the heavens fall" we shall continue to proclaim that which we honestly believe to be for the general good of American apiculture.

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THE AMERICAN BEE-KEEPER is at the head of the list of monthlies, regardless of price.—H. M. Jameson.

PAN-AMERICAN EXPOSITION,

Buffalo, May 1 to November 1, 1901.

Although ground was first broken for the Pan-American Exposition on the 26th day of September, 1899, it was not until June 4th last year that the first timber was raised aloft as the beginning of the superstructure of the first building. Since that day a beautiful city of more than one hundred buildings has sprung into existence which, on Wednesday, May 1st, was formally opened for a six months' festival.

It may be said to the credit of Buffalo that her citizens have furnished the money for it, receiving no government aid. The entire amount appropriated by the Federal Government for this Exposition has been expended under the direction of the Government Board of Federal exhibits exclusively. The New York State appropriation has also been expended under the same conditions. The total cost of the Exposition, including the Government and State appropriations, the cost of the Midway and other buildings, is conservatively estimated at $10,000,000. The general architecture of the Exposition follows the Spanish Renaissance. The plan was worked out by a board of eight leading architects representing several of the leading cities of the country.

The most comprehensive view of the Exposition is, perhaps, obtained from the Esplanade from a point a few rods north of the Triumphal causeway. Here the visitor, with one sweep of the eye, may see nearly all of the principal buildings of the Exposition. The Triumphal Causeway, behind him, is a magnificent structure, designed by John M. Carrere, chairman of the Board of Architects. Four tall pylons are connected by swinging cables. The pylons are surmounted by four standard bearers; designed by Karl Bitter, the director of sculpture. The bridge, as a whole, is intended to express the pride of the American people in their achievements. Terminating the buttresses of the piers are four groups of trophies typifying Peace and Power, modeled by Augustus Lukeman. In the niches on the side of the bridge are statues symbolical of Hospitality, Love of Truth, Patriotism, Liberty, etc. On each side of the bridge are fountains of rearing horses and figures clustered about tall poles which carry huge silken flags. The fountain on the east typifies the Atlantic Ocean, and that on the west the Pacific ocean, with one base uniting the two. The sculptor of these is Philip Martiny. Beneath the bridge are subterranean grottos modeled after the famous Buttes de Chaumont.

Turning now to the eastern wing of the Esplanade, the observer will note the group of three government buildings, the open space being embellished with sunken gardens, fountains and statuary. At the left, marking the western boundary of the Esplanade, are the Horticulture, Mines and Graphic Arts buildings, this court being, also, decorated with statuary, fountains and flowers. Looking due north, the majestic Electric Tower rises to a height of 409 feet. This tower stands at the north end of the Court of Fountains and constitutes a very beautiful centerpiece. On the eastern side of the Court of Fountains are the Ethnology, Manufacturers and Liberal Arts and the Agriculture buildings. On the west side are the Temple of Music, Machinery and Transportation, and Electricity buildings. Beyond the tower is the Plaza whose northern boundary is marked by the Propylæa, a very beautiful architectural screen, rich in color decorations and ornamentation of statuary. East of the Plaza is the great Stadium, a mammoth building having a seating capacity for about twelve thousand people. West of the Plaza is the entrance to the Midway, where one may spend days enjoying the multitude of novel entertainments.

The beauty of the picture is beyond the power of anyone adequately to describe, for no words can convey to the mind the glorious result of the combined efforts of the architect, the sculptor, the landscape gardener, the colorist and the electrician. They have all worked harmoniously to produce a set picture upon such a magnificent scale as to dazzle and delight every beholder.

One of the pleasure trips within the Exposition grounds is the circumnavigation of the buildings upon a broad canal by means of launches which stop at convenient points. This canal, over a mile long, surrounds the main group of Exposition buildings. A miniature railway also skirts the Exposition fence and will be found convenient by many.

The Midway Red Star Route.

With the object in view of presenting a route of wholesome fun and instruction, some of the enterprises have gone together in an organization called the Red Star Route, guaranteeing absolutely their entire offerings as wholesome and free from all objectionable features. The following brief descriptions of their exhibits will give the reader an idea how to do the Midway without suffering the humiliation of having been "done" by it.

Naturally, the first visit will be made to the electric reproduction of the Burning Mountain of the Sandwich Isles—the Volcano of Kilauea, because of its nearness to the main entrance to The Midway. The spectators stand within an extinct crater of this perpetual fire mountain of Hawaii. The admission is 25 cents.

Next to the Volcano you visit the Hawaiian Village, where you will find the now world-renowned Native Band of Hawaii, whose music, especially the Hawaiian national airs, are delightful. The price here is also 25c.

Next, for the sake of patriotism, visit the great electric cyclorama, the Battle of Mission Ridge. Its management begs that the G. A. R. will make their commodious waiting rooms their general headquarters. The price of admission is uniformly 25 cents.

The Filipino Village, Band, Bolo Dancers and Theatre is one of the genuine novelties of this great fair. It is a big colony and contains representatives from nearly all the races inhabiting the islands. Price of admission here, 25c.

You have now reached the Mall. Before you lies the Administration Building; within its beautiful gardens, by special virtue and right accorded it, you will find a handsome brick Venetian edifice which contains the greatest wonder of all the Exposition —Baby Culture, as practically demonstrated, by the Qbata Company of London. Berlin and New York. This concession must not be confounded with the Midway. It is a separate and distinct exhibition of the Infant Incubators, from the London and Berlin Institutes and has for its object the saving of the lives of the poor little unfortunate babies who happen to have been prematurely born. The admission here is also 25c.

On the Midway, and immediately opposite the great Horticultural Building, you will find the Herodian Palace containing the sacred spectatorium, Jerusalem and the Crucifixion of Christ. Before you is Golgotha. The Savior of all mankind upon the cross, surrounded by guards with the rabble standing apart. Only a few of the faithful are seen. They endeavor to comfort Mary, the Holy Mother of the Crucified Lord. Broken in spirit, exhausted by agony, she presses with her hands the bleeding feet of her Son and wets them with her tears. The Holy City of Jerusalem backs this grand group of the atonement.

Such is the itinerary offered in the route laid out by the Red Star Line. A gamut of passion running from happy laughter to that of passionate tears. You have, closely linked, eight exhibitions covering Science, Music, Drama, Physical Geography, Ethnic Study, Patriotism and Religion. You gratify curiosity, you feed the mind, enjoy laughter, stimulate patriotism and receive incidentally the Lasting Lesson.

AGENTS Wanted in every town for our **Washing Machines.**

You can double your money every time you sell one and they sell easily. We have sold over 150,000 in the last fourteen years. They are cheaper than ever. Catalogue Free.

THE EMPIRE WASHER CO., Jamestown, N.Y.

ALUMINUM and Non-metallic LEG BANDS,

12 for 15c.; 25, 30c.: 50, 50c.; 100, $1.00. Special prices to dealers.

PRINTING! 100 Envelopes 45c.; 250 75c.; 500 $1.00; 1,000 $1.75. 6x9½ Note Heads, Cards or Shipping Tags same price as envelopes.

Cuts to illustrate. Send 10c. for six months' trial subscription to Western Farm-Poultry, 30 pages. Big package Lice Killer 50c.; big pkg. Poultry Compound 50c.

1-6t **WAGLE PUB. CO., Marshall, Mo.**

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All the best Agricultural News. $1.00 a year.
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A monthly poultry paper of from 40 to 60 pages, which keeps at the front as a genuine, high-class poultry publication. It also issues illustrations of fowls in their natural colors. It is devoted to poultry raising in all of its branches. Send your address to it for a free copy. The price of the paper per year is 50 cents, six months 25 cents. 2-6t

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Attention! Poultry Raisers.

"Diseases of Poultry and Their Cure" is a book giving a careful and thorough description of all diseases common to poultry. It will tell you what is the matter with your fowls when they are sick, and will give you the surest cure. Every poultry raiser needs it. Price 25 cents, post paid. Published by the Eureka Mfg. Co.,
2-6t East St. Louis, Ill.

The finest line of Wooden Advertising Novelties, such as Thermometers, Match Safes, Rulers, Yard-sticks, etc. made in the world, is the line manufactured by The American Mfg. Concern, Jamestown, N.Y.

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is known pretty well all over the country and has never failed to prove satisfactory when handled by a person of intelligence and with ordinary attention. We guarantee them to be satisfactory or you needn't pay for them. What's more fair than this offer, and doesn't it show that we mean what we say as to its merits? Send for catalogue.

The W. T. FALCONER MFG. CO., Jamestown, N.Y.

The Modern Farmer and Busy Bee,

Edited by Emerson Taylor Abbott, who is well-known among bee-keepers, is pushing to the front rapidly as a general farm paper. Send for their **Premium List** and get up a club. They are making some of the most liberal offers ever made by a publisher. Address at once,

Modern Farmer,
St. Joseph, Mo.

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High-grade Belgian Hares.

We have a fine lot of high-grade pedigreed Belgians which we will sell at bed-rock prices if taken at once.

Sir Britain, a worthy grandson of Lord Britain

in the stud. Write at once and say wha you want and we will quote prices.

Sample copy of a
Farm Paper Free.

Red King Belgian Hare Co.,
St. Joseph, Mo.

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The best illustrated monthly magazine of the kind published.

Its pages are filled by a brilliant array of writers and artists. Its authoritative and independent reviews of books, plays, music and art: its clever stories, strong special articles, humor and verse, with line illustrations, make it a necessity in every intelligent home. The very low subscription price —$1.00 per year—puts it within the reach of all. Reliable agents wanted in every town. Extraordinary inducements. Write for particulars.
A trial subscription will prove it.
Write to-day for sample copy.

Criterion Publication Co.,
Subscription Dept. 41 E. 21st St., N.Y. City.

4, 4t. eom

Early Late Queens.

Our strain of Italians we believe to be unexcelled. Our facilities are unsurpassed. Our location being farther South than that of any other breeder in the United States, we can ship queens any day in the year. No disease. Untested queens $1.00 each. Special prices quoted on special queens, and on quantities. We guarantee safe delivery of queens to all parts. Our mating grounds are situated 2½ miles from the mainland, on an island.

SOUTHERN BEE COMPANY,
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H. E. Hill, Mgr. Fla., U. S. A.

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DIRECT FROM PRODUCER OR JOBBER TO CONSUMER
EVERY THING PATRONS SUPPLY HOUSE LAKE & STATE STS. CHICAGO **FOR EVERYBODY**
CAN SAVE YOU MONEY ON EVERY PURCHASE
PLEASE MENTION GREAT OR SMALL THIS PAPER
WRITE FOR CATALOGUE. ENCLOSE 10 CTS. TO HELP PAY POSTAGE

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Beautifully printed and illustrated and with over 30,000 monthly circulation among the most progressive Farmers, Fruit Growers and Agricultural Specialists of the great Northwest;

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St. Paul, Minn.

2-6t

This is only two lines, yet you notice it. Others would notice YOUR advt. in THE AM. BEE-KEEPER.

$200 Red-clover Queen.

OFFER No. 35.

ON SEPTEMBER 1st last we announced that we finally had a red-clover queen fully equal to the one we had years ago. The colony of this queen has given one of the most remarkable showings on red clover of any bees we have ever had. The queen in question is an imported one, and therefore of the genuine pure leather-colored Italian stock. We sent out daughters from her all the season. But we did not discover her value until the clover season, second growth, came on, and then her colony so outdistanced all the other 450 that she attracted attention at once.

It must be understood that these queens are not golden yellow, neither are their bees of the five-banded stock. They are simply leather-colored Italians, whose mother came direct from Italy.

Since the notice appeared regarding this queen we have hardly been able to supply all of the queens that were wanted from this stock. Many daughters of this queen we sent out before we knew her value, and it now transpires that some of the finest bees in the land are from queens we sent out early. We are now booking orders for the coming season, and make the following offer, but no queens will be furnished except to those who subscribe for GLEANINGS, and only one with each year's subscription. All arrearages must be paid to the end of this year. Gleanings for 1901 and one untested red-clover queen, $2.00; Gleanings one year and a tested red-clover queen, $4.00; a select tested red-clover queen and Gleanings one year for $6.00. We will begin mailing these queens in June, 1901. Orders are already being entered, and the same will be filled in rotation. Do not neglect to improve this opportunity and get some choice stock, and send your order early so you may get the queen correspondingly early in the season. We are using every precaution to winter this queen safely, but reserve the right in case of her loss this winter to substitute from other select tested stock of this strain which we are holding in reserve, or to give the subscriber the benefit of any of our other clubbing offers if desired.

The A. I. ROOT CO., Medina, Ohio.

QUEENS

Improved Golden, and Leather Colored Italian, is what H. G. Quirin rears.

We have one of Root's best Red-clover breeders from their $200 queen and a Golden breeder from Doolittle, who says, "If there is a queen in the United States worth $100, this one is." These breeders have been added to our already improved strain of queens for the coming season.

J. L. Gandy, of Humboldt, Neb., wrote us on Aug. 15, 1900, saying that the colony having one of our queens had already stored over 400 pounds of honey, mostly comb. He states that he is certain our bees work on RED CLOVER, as they were the only kind in his locality and apiary.

A. I. Root's folks say that our queens are extra fine, while the editor of the American Bee Journal tells us that he has good reports from our queens from time to time. We have files upon files of unsolicited testimonials. After considering above evidence, need you wonder that our orders have increased each year?

Give us a trial order and be pleased: we have had years of experience in rearing and mailing queens: safe delivery will be guaranteed; instructions for introducing sent with each lot of queens.

Price before July 1st:	1	5	12
Warranted Stock - -	$ 75	$4 25	$8 00
Selected Warranted - -	1 00	5 00	9 50
Tested - - - - -	1 50	8 00	15 00
Selected Tested - -	2 00	10 50	

Extra selected tested, the best money can buy, $4.00 each.

FOLDING CARTONS with your address printed on in two colors, $4 per 1,000; 500, $2.75

H. G. QUIRIN, Parkertown, Ohio.

4 6t (Parkertown is now a Money Order Office.)

NEVER NEGLECT A COLD OR COUGH

Neglect a Cold or Cough and if La Grippe don't get you, Consumption will. **CUSHMAN'S INHALER** cures colds and all diseases of the breath-way passages. You lose dollars in doctor bills in not keeping **CUSHMAN'S INHALER** handy to drive off a **cold or cough or sore throat at its very first approach.**

If you can't get it at Druggists send for it. By mail, 50 cents. Send for Book on Menthol, free.
CUSHMAN DRUG CO., VINCENNES, IND., U. S. A.

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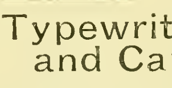

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W. F. & JOHN BARNES CO.,
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Typewriters and Cameras.

If any reader of THE BEE-KEEPER is contemplating the purchase of a photographic outfit or a writing machine, I should be pleased to have him correspond with me before placing an order for either. I am in a position to offer new instruments of the highest grade, direct from the manufacturers, at the lowest possible prices. Respectfully,

3-tf. H. E. HILL, Ft. Pierce, Fla.

Beeswax wanted

We will pay 28 cents cash or 31 cents in goods for good quality of Beeswax, freight paid to FALCONER, N.Y. If you have any, ship it to us at once.

[Prices subject to change without notice.]

The W. T. Falconer Mfg. Co.

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Are easily obtained under right conditions and proper attention. Subscribe for our poultry paper and learn how. 25 cts. a year. Sample copy free.
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160 page Bee Book Free!

Book sent free with American Bee Journal.

Every NEW SUBSCRIBER sending $1.00 for the WEEKLY **American Bee Journal** for one year will receive a copy of Newman's 160 page "Bees and Honey" free. The old **American Bee Journal** is great this year. You ought to have it. Sample of **Bee Journal** free. Write for it.

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The Nebraska Dairyman

(and Up-to-date Farmer),

Published monthly. 20 pages. Subscription 50c.
Established 1897. Circulation 5,000.

Devoted exclusively to creamery and dairy interests and diversified farming. Advertising rates made known on application. J. P. ISRAEL,
1tf Publisher, Lincoln, Neb.

HELLO! Do you want some good pure bred **POULTRY?**

We can furnish you **EGGS FOR HATCHING** from fine White Wonder fowls, R. C. B. Leghorns, B. P. Rocks, Partridge Cochins; S. L., Golden and Black Wyandottes, Toulouse Geese, Rouen Ducks and Mammoth Bronze Turkeys. If you want something good send for our illustrated catalogue and price list, which is free when you mention this paper. Address,

1tf **The Eureka Poultry Farm,**
Established 19 years. Hamburg, Wis.

One of the most Northern poultry farms in the U. S.

BEGINNERS.

should have a copy of

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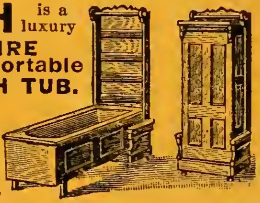

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A MONTHLY JOURNAL PUBLISHED FOR THE BENEFIT OF EVERYONE INTERESTED IN BEES AND HONEY

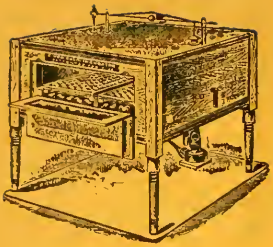
MURRAY-FEISS.CLEVELAND.O.

JULY

1901

Vol. XI No. 7

Entered at the Postoffice, Falconer, N.Y., as second-class matter.



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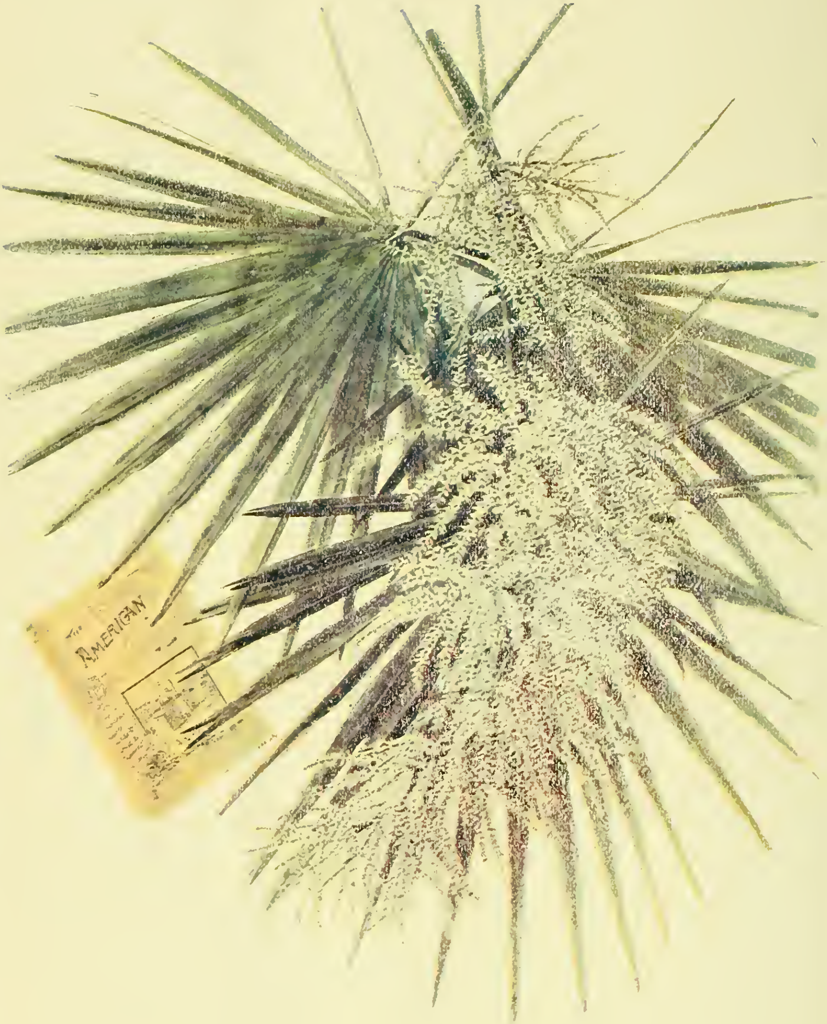


Leaves and Bloom of
Saw Palmetto

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI JULY, 1901 No. 7

SAW PALMETTO.

Something of a Great Honey Producer, Which is Otherwise Valuable.

BY W. S. HART.

THE saw palmetto, *sable serulata*, is the most dense and plentiful growth of any over large portions of Florida and will grow abundantly and to full development in apparently pure sand, where scarcely anything else will thrive. It is a tree the trunk of which may lie under the surface of the ground, directly upon it, or reaching up therefrom some ten or twelve feet. The true roots put out from the under side of this trunk wherever it is in contact with the ground. They are the size of a pipe stem and very strong and often penetrate to a depth of fifteen or more feet on high ground. The wood of the trunk is of a peculiar formation, being composed of strong, dark fibers, imbedded in a granular matrix exceedingly rich in tannic acid and potash. Short sections of the trunk with this matrix simply combed out on one side for three-fourths of an inch make very fine scrubbing brushes. This tree is now attracting the attention of capitalists as one of the cheapest and best sources from which to obtain tannic acid for the making of leather, and quite a successful plant for this purpose has already been established at Titusville, this state.

The leaf is pinnated and well adapted to various commercial uses, such as the making of paper, an exceptionally clean and springy filling for mattresses, the making of hats; for decorative purposes etc. A paper has been made from it of finest quality and capable of holding oils and other liquids.

The leaf stalks put out from a fold of vegetable cloth, as do those of many of the palms, but this is finer and softer than that of most of the other species. These stems are from a foot to five feet long, according to the conditions under which they grow, and are used by some orange growers to strap orange boxes for shipment. When properly cured they are almost as tough as horn and a much handsomer strap than any on the market, while they also constitute a distinctive mark of Florida fruit that is not likely to be duplicated by any other state or country.

The bloom is composed of small, cream-colored flowers on racenes from one to three feet long and oftentimes a foot or more wide, each carrying many hundreds or even several thousands. As a general thing these secrete honey quite freely and also supply a liberal amount of pollen, but once in every few years they will fail to do this. The blooming time is from the middle of April well south in the State to June further north, lasting some years even well into the latter month. The honey is of a fine light amber color, heavy in weight and having a flavor that takes well and wears well on the markets of the North.

The foregoing is in reference to the honey from the blossom, but in late Fall another grade of honey is obtained from the berry. The berries develop in great clusters, often six or eight of these to the "bud," or terminal head of the tree, from a quart or two to a peck or more often being gathered from one of these. These berries are from the size of an olive to about twice that, and of like shape and seed, though the seed is much smaller in proportion to the size of the fruit. Hundreds of tons of these berries are gathered each season and shipped to chemical works where their very valuable properties are extracted and made into medicine to go to all the world. It is only a few years since it was discovered that this fruit contained a large per centage of the oils of bromine and iodine, the only source of the latter from any dry land plant known, I believe. Sansmetto is made from this and sandalwood. The increasingly popular summer drink, "metto," is also made from this berry. After the fruit becomes fully ripe the rich juice oozes through the skin and stands in thick syrupy drops on the outside, from where the bees gather it, often filling their hives with a rich store almost at the close of the year. There has been no analysis of this honey so far as the writer knows, but there seems to be little doubt that it is of far more value as a medicine for all throat and lung troubles, as well as for the healthful development of the glands of the body, than almost any nostrums now offered suffering humanity. Hogs, cattle, bears, people, all get fleshy and robust when feeding on the berries. This curious tree and its fruit have a future that we of the present can only guess at. Fortunately the supply is almost unlimited, though its growth and fruiting in greatest perfection is largely confined to the sea coast.

Hawks Park, Fla.; June 11, 1901.

◆

"Bees range ordinarily within two or three miles in all directions from their homes, but sometimes go farther."

UNPAINTED HIVES.

A Criticism of Mr. Doolittle's Defense, in the May Number.

BY ARTHUR C. MILLER.

APPARENTLY Mr. Doolittle always considers any criticism of his expressed views as a personal attack, and in his replies often gives way to his feelings. Such an attitude, be it due to whatever cause it may, makes it particularly unpleasant to those who, believing his views erroneous, have to controvert them. In his reply to my article on unpainted hives he has plainly evinced such feeling, and used forms of expression which are not conducive to good feeling, nor what we should expect from one who says: "Trying to hold another up to ridicule does not count for anything in an argument."

In the reply alluded to he has made some misleading statements and assertions to which, for the protection of myself and of those who, relying on Mr. Doolittle's prominence, assume a thing is so because he says so, I must make answer.

To save space, instead of repeating my original remarks, I will refer those interested to the January AMERICAN BEE-KEEPER. Freed from its verbiage, Mr. Doolittle's reply is this: As moisture cannot pass through the walls of a painted hive, it condenses on the inside; that paint is expensive, in twenty-one years equalling two and one-half times the cost of the hive; that in painted hives the combs would be all covered with ice after a spell of zero weather; that the propolis "checks" and lets the moisture through; that a chaff hive should be painted, "that the chaff walls or dead air space would allow the moisture from the bees to pass off and out;" that "nearly all bee-keepers in the North now winter all single-walled hives in the cellar;" that "all practical bee-keepers use a shadeboard;" and that his are covered with tin.

To which confusion of ideas I would

reply: That an unpainted hive will let the water in as readily as out; that while the surface of the propolis "checks," the pores are still plugged with it; that if moisture is stopped by paint it cannot pass "off and out" of the outer shell of the painted chaff hive after it has passed "the chaff or dead air space;" that paint at $1.80 per gallon is expensive (mine costs sixty cents a gallon, which will cover forty hives, and I can paint twelve an hour and take it easy); that combs in my painted single-walled hives come through as dry and as nice as those in chaff hives; that not all nor nearly all practical bee-keepers use shade boards; that he has not figured in the cost of the tin on the shade board as an offset against the saving in paint; that no shade board will keep off a driving rain; that the term "North" is a decidedly indefinite one; that he ignored the fact that I expressly called attention to the conditions of my locality; that between the 39° and 42° north latitude there are thousands of colonies that are always wintered out of doors in single-walled hives; that if he winters his bees in the cellar it is strange they are out in zero weather.

Mr. Doolittle's remarks in regard to the city of Providence are decidedly erroneous: the city has but one trust and that a small one and incorporated under New Jersey laws. A greater proportion of the wage earners own homes than in any other city of like size. The savings banks hold $52,334,828.00 of the wage earners' money, and this with the "personal property" tax list of the city at $43,022,400.00. While Providence is my post office address, I do not live there.

I would like to kindly suggest to Mr. Doolittle that by trying to write of subjects about which he is far from well informed, he is seriously detracting from the prestige he has gained by his writings on bees.

I trust, Mr. Editor, that you will pardon my allusion to the matter about Providence, which has nothing to do with bees, to which I believe your magazine is exclusively devoted, but it seemed necessary in order to fully reply to Mr. Doolittle's article.

In endeavoring to make this brief it is unfortunately curt, but no discourtesy is intended.

I rest my case here.

Providence, R. I. June 11, 1901.

"Look for a man's virtues before you herald his faults."

HOW TO QUELL THE TEMPER OF BEES.

BY REV. C. M. HERRING.

THAT bees have a large share of temper no one will deny. Some are much more sensitive than others, but all bees I have ever seen, when in a normal condition, will kindle with the fire of rage when they are insulted.

When rudely molested the average bee will show temper and sometimes will hold the resentment for weeks. The whole process of robbing the bees of their stores is a matter of irritation, and with some bee-keepers it is the source of constant warfare in the apiary. To control the temper of bees skillfully and take from them their precious stores without disaster or trouble, is a great study which is seldom fully mastered, but I think it can be done; and much of the secret of so doing is in avoiding friction at the start; but after the war is fairly commenced the problem is much more difficult.

When fully aroused, the mad army is usually master of the situation. Then the infection is liable to spread from hive to hive until all the tribes, putting on the war paint, will fight to the bitter end. It is true such cases may be very rare. Only one, so far as I know, is on record in which a large number of colonies joined the strife; and it was death for man or beast to approach the grounds.

Such is truly a fearful case, for the warriors are all well equipped with lancets tipped with poison which, if hurled at their master, unprotected, would drive the man to the wall or lay him low in death. Such a case is possible: and it becomes every bee-man to know how to proceed in such an emergency.

Smoke will answer a good purpose in preparing the way to handle bees successfully; but after the bees have become enraged and are in the air, smoke is of no avail. Such cases occasionally will transpire, when the bees are full of revenge and war is inevitable; and if the case is very serious, the question of this article is, how can we meet it?

An extreme case of this kind once occurred in my apiary. From a densely crowded colony I removed the case of honey in which the queen had deposited a small amount of brood, to which the bees clung with the greatest tenacity. In brushing them off, they became more and more enraged until I found the air was full of angry bees venting their spite on me. They covered me from head to foot, pricking my body in every part. Wherever there was a vulnerable spot they seemed to know it and would pour in their forces. The disaffection seemed to be extending wider and wider; and I became greatly alarmed for the safety of my neighbors. My wisdom was not equal to the occasion, and I knew not what to do. In my extremity I looked up higher, and a new thought struck me with great force.

IT IS A BIBLE IDEA.

If I were dealing with an angry man, I would be likely to subdue him by "heaping coals of fire on his head." Jacob killed the wrath of his brother by sending him a present; and the Master says: "Overcome evil with good." The thought occurred to me: "I will try this 'law of love' on my bees: I will give them honey." I quickly placed more than a pound of honey at the front of the enraged colony, and at once the device worked like a charm! The pickets were called in; the army was ordered home; peace was declared, and in five minutes not a warrior was seen on the field of blood. And from that moment all remembrance of the strife was at an end.

I think I will leave the philosophy of such an event to Bro. Doolittle.

Brunswick, Maine.

"Ill fares the hive,
To hastening ills a prey,
Where wealth accumulates
And bees decay."

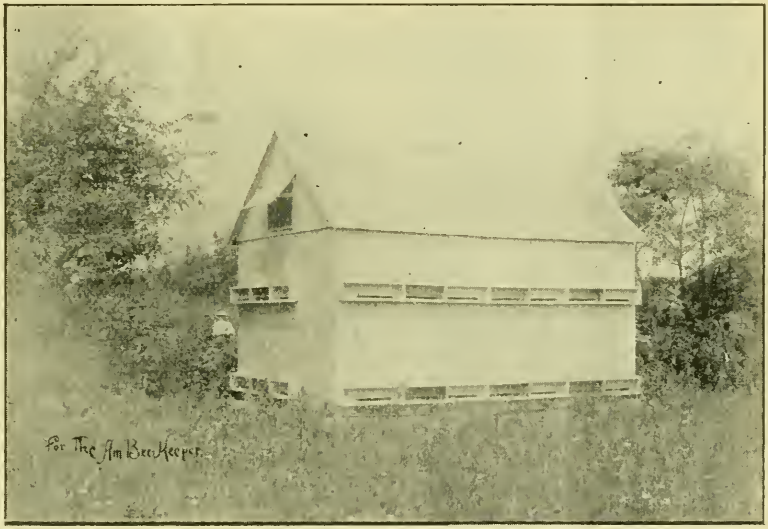
A HOUSE APIARY.

Something of its Construction and Operation.

BY F. G HERMAN.

DESIRING to try the merits of a house-apiary, I thought I would have one built on the following plan: The lumber used in this building is common inch matched boards, planed on one side; the frame is made of 2x4 inch wall strips. The roof is covered with Neponset paper, and is perfectly water-tight. The building is nine feet wide and fourteen feet long; there is a window in each end and one on the opposite side. The door is on the rear end which faces northward. The building rests on large stones; has a good floor in it; is neatly painted; was built by a mechanic, and cost just $53. This house is located on a berry farm, two and one-half miles from my home apiary. It contains twenty colonies of bees in two tiers of hives. The broad side of the house, which is in view, faces eastward and the end southward. There are no hives facing on the other two sides. The hives used in this house are known by the name of "Long Ideal." They were made to order for me by The W. T. Falconer Manufacturing Co., of Jamestown, N. Y. They hold twenty Langstroth frames each, crosswise, and are expressly used for extracted honey. The total cost of hives, fixtures and house was $125, not counting the bees. I rear them myself and do not add them to the cost. One row of hives rests on a frame just high enough so I can raise the covers and look into them comfortably, and the other row rests on the floor. I might add that the hives are only one story, so that there is no use for queen-excluders and no tiering up to be done. There are no bees at large in the house excepting a few which leave the combs while handling them, and these quickly make their escape by way of the windows, which are left open all summer, for ventilation. The netting on the windows is so arranged that the bees can leave the room but cannot enter it. The awning over the windows is to prevent the rain from coming in while the windows are left open. The hive entrances match the corresponding slots in the side of the house, and when the bees enter the slot or entrance, they go direct into their respective hives. Each alternate entrance, you will notice, is painted a darker color; this is for the purpose of helping the bees to mark their right hive.

This picture was taken in berry picking time; there are several pickers in the field, but only one could be induced to come in range of the camera. This berry plantation is worked by a practical nurseryman and berry-grower, who is desirous of having bees on the farm. He has informed me that the yield of berries was unusually large last year; probably the bees are responsible for the extra yield. However that may be, I do not know; but I know my bees get some very nice honey from those raspberry and blackberry blossoms. There is no contract or agreement between us as to rent, only that I supply him with a quantity of honey for his family. This bee-house was built in March, 1900. About the middle of April, when the weather was favorable to open hives, I took the Long Ideal hives into my home apiary and transferred the bees and combs from my chaff hives into them. Of course it was only necessary to take two or three frames at a time and lift them from one to the other. Toward evening, when the bees stopped flying, I closed the entrances with wire-netting,



HOUSE APIARY OF F. G. HERMAN, ENGLEWOOD, N. J.

loaded them on a wagon and drove to the bee-house, where they were soon arranged in position. The next day happened to be a pleasant one; the bees came out in great numbers and evidently became somewhat confused as to which were their right hives. Three hives were deserted, the bees having joined some of the others. But the other seventeen built up nicely, and in May I divided three of the stronger ones and made the full complement of twenty. Some time in the latter part of May I removed the division boards and filled the hives with frames of comb foundation. There was not a single swarm issued from this house; this was the very thing I was striving to accomplish. The bees are always comfortable, being shaded from the hot sun, and they seem to have sufficient room on twenty frames in one body. It is very comfortable for the operator, too. I took from this house, in September, six hundred and fifty pounds of very nice honey, which averaged at retail 14c. per pound, making a total of $91. The yield in my home yard was much below the average, so the year 1900 can be classed as somewhat of a poor year for honey. Now, as I have enough surplus combs built, I think I can expect an average crop of one thousand pounds a year from this house: no further expense only rent and cartage in bringing home the honey. I visited this house during summer once every week or two, being a nice little spin on the wheel. I intend putting out some more colonies this spring as thirty or forty colonies will probably find pasturage enough and can be just as easily looked after when visiting the out-yard.

Englewood, N. J.; April 13, 1901.

[Mr. Herman sent also a very pleasing picture of the interior of this house-apiary; but we regret to say it was too weak for reproduction. A smaller stop and full minute more exposure would have given a picture that would have interested and greatly pleased our readers. —Ed.]

"Man is rich, not because of what he owns, but because of what he enjoys."

A July Day.

With songs of birds and hum of bees,
And odorous breath of swinging flowers,
With fluttering herbs and swaying trees,
Begin the early morning hours.

The warm tide of the Southern air
Swims round, with gentle rise and fall,
And, burning through the golden glare,
The sun looks broadly over all.

So fair and fresh the landscape stands,
So vital, so beyond decay,
It looks as though God's shaping hands
Had just been raised and drawn away.

The holy baptism of the rain
Yet lingers like a special grace;
For I can see an aureole plain
About the world's transfigured face.

—George Henry Boker.

He who lets the world or his own portion of it choose his plan of life for him, has no need of any other faculty than the apelike one of imitation. He who chooses his plan for himself employs all his faculties.
—John Stuart Mills.

IMPROVEMENT OF STOCK.

BY G. M. DOOLITTLE.

All apiarists who have an eye to the betterment of their condition, along the line of a better honey yield, know that some colonies in the apiary give better results than do others. Thus we often hear bee-keepers say, "If all the colonies had been as good as was No. 12" (number 45, or some other number as the case may be). "I should have had several hundred, if not thousand, more pounds of honey than I secured this year." Well, the question is, Why not have all the colonies in the apiary as good as No. 12? We may not accomplish all we would like to in one year, but by superseding all the poorer queens in the apiary by those raised from No. 12, we certainly shall be advancing our apiary up the scale toward number twelve's yield. This is what I have been working for during the past thirty years and it gives me pleasure to say that my colonies average very much more nearly alike in their yields, and the average yield per colony is much higher in proportion to the yield of nectar from the nectar-bearing flora than it was when I commenced. And to improve our stock we must supersede our poorer queens with those from the better stock. I find that there is no time of the year in which queens are so generally superseded as immediately after the principal honey flow, and we can always rest assured that when the bees are willing to do such work, then is our best time. With me, fully three-fourths of all the queens superseded by the bees are so superseded during the three weeks immediately following the basswood honey-flow. Knowing this fact I have, for years, done the most of my re-queening at this time of the year, and with success which has always pleased me, and that without interfering with my honey crop in the least. To this end I start a greater number of queen cells than usual from five to eight days before the expected close of the basswood honey harvest, and, when these cells mature, hunt out the old queen and dispose of her, giving a mature cell twenty-four hours after having removed the old queen. If cell-protectors are used, the cell can be given at the time of removing the old queen, thus saving once opening of the hive; for, as a rule, the bees allow a queen to hatch all right where a cell-protector is used. If the young queen emerges from her cell in an hour or so after giving the cell, or before the bees are aware that their mother is gone, they will sometimes kill her and start cells from their own brood; but if the cells do not hatch in less than from twelve to twenty-four hours after the old queen was removed, nearly every queen will be accepted all right. By raising the queens before the honey harvest closes; that is, the bees doing the feeding of the embryo queens while in the larval form before the honey flow is over; they are sure to be fed in such a way that the very best of queens are produced, this also having a great advantage toward accomplishing our object over and above what would be if we raised our queens before the harvest commenced, or after it was over.

Another plan which I have often used since my apiary became very much improved beyond what it formerly was, is to raise a lot of cells from my best queen at the time given above and, twenty-four to forty-eight hours before they are booked to mature, give one to each colony having a queen more than one year old, using a cell-protector for each one, and placing this protected cell in one of the sections on the hive, or anywhere I best can where the bees can cluster about it, without hunting out the old queen at all; when, if the bees have any notion to supersede their queen, they will accept of this young one and destroy the old queen. If they destroy the young queen I allow the old one to remain, thinking that the bees know what is right, and in nineteen cases out of twenty where the bees decide on keeping the old queen I find she proves *par excellence* till after the honey flow of the next year is over. This is something which does not cost much labor and which I practice often to my satisfaction.

Borodino, N.Y., June 4, 1901.

* * *

> The man who holds exactly the same opinion on any subject that he held even a few years ago, is virtually a nonentity.
>
> —F. Dundas Todd.

* * *

A number of farmers report that a peculiar little green worm is causing great destruction in the clover fields and as a result the clover will be practically a failure in many places at least. The worm is about three-fourths of an inch long and are found by the millions. They eat the head out of the clover stalks and deposit their eggs there. It seems to be a new enemy to clover.—*Titusville* (Pa.) *Herald.*

"An honest confession is good for the soul," and the Hutchinson strain of three-band Italian bees for gentleness and business; and hence I offer untested queens from this superior stock at 75 cts. each, six for $4.00, or $7.50 per dozen, and Goldens bred from select stock at the same price. Money order office Warrenton, N. C. W. H. PRIDGEN,
7-2t Creek, Warren Co., N.C.

The Seasoning Series

By Deacon Hardscrabble

Dear Brother Hill:

"Perhaps it is a sin
For me to sit and grin
At him here,"

But, notwithstanding that, I am going to write you a little homily on bee journals, and if the shoes pinch you—well, reform. Some of the papers need at their head that firm orthodox old parson who put a binding screw in the weather vane so it wouldn't shift with every vagrant zephyr. Writing of weather reminds me that many of the publishers need a good, old-fashioned "Almanack," not to tell them to go in when it rains, but to let them know when the first of the month arrives. The "Old Reliable" is about the only one ever out on time.

Hast thou ever noticed that when an article starts off or ends with a touching eulogium of somebody, that article is sure to be full of the hardest kind of raps for that very person. Now and then some one gets real mad and writes hot thoughts in plain English. Ah! but it is refreshing, only don't you let the parson know I said so. In the not far distant past some of the young bloods have spoken right out, and one—and he not from the biggest state in the Union—got quite impertinent to some of us gray beards. However, though 'twas unpleasant it seems to have done some good, and we are waking up to the changed conditions to find that we veterans are not the whole thing after all. I surmise the rest of the boys object to the opening of new fields for much the same reason that I do; which is, that unless we would be left out, it means *hustle*, HUSTLE, HUSTLE. (Just say those "hustles" with a "*h*aspirated *h*aitch"). And to think of the quiet, gentle, placid Rambler urging strenuosity. Oh dear! oh dear! and he no chicken either!

What a lot of half truths are afloat. They are most emphatically dangerous because of the two-thirds of untruth mixed in.. Also what a lot of anciently dead things are filling up good space; entrance blocks for instance, when a handful of sand or a bit of sod suffices as well. Turn some of us old war horses out to pasture and give the youngsters a chance. It's funny how Chicago expansiveness affects a man. One editor there has so far expanded that he has entirely lost sight of townships, and now all his correspondents hail from counties. 'Twill be just plain "Earth" bye and bye. A little paragraph in the *British Bee Journal* anent stings recalled to my mind the "sting trowel" joke of that reverend Canadian, and of the way the "boys" bit. Ah! but that was rich! Jog their memory lest they forget, and forgetting, wax wise in their own conceits.

A man in La Salle, N.Y., has discovered three kinds of colonies: The know they will; the know they wont; and the don't know anything about it. There is a jolly lot of truth there if you did but know it. In *Gleanings* for May 1 that Doctor of Straws says Mr. Pettit comes down hard on thick-top bars (lucky they're thick). Then the amiable Doctor and his understudy proceed to get each other's ideas so beautifully mixed that even their wives couldn't tell them what they mean. And when a man's wife cannot untangle his ideas he is in a bad way.

Politics for making strange bedfellows isn't a circumstance beside bee-keeping, and for making odd combinations of professions and developing versatility, it is fully equal. One young man of my acquaintance is a first-class artist in photography, and is a good bee-keeper too—no, you need not ruffle up your feathers for I may mean you. Another combines law with bee-keeping, possibly hoping to influence the bees therewith. Another dispenses pills, but he is no more successful than the rest of us in curing foul brood. Another dabbles in sociology, caught it from "*Ye Feminine Monarchie*" perhaps. Still another has astronomy for a by-play, which goes to show how elevating is bee-keeping. But most wonderful example of all is in the Home of the Honey Bees; there even the A I R is versatile.

I will close this letter, as I began it, with a quotation from Holmes:

"And if I should live to be
The last leaf on the tree
In the Spring,
Let them smile as I do now
At the old forsaken bough
Where I cling."

Yours as ever,
JOHN HARDSCRABBLE.

* * *

"In Ceylon the natives, when they find a swarm of bees hanging on a tree, hold burning torches under them. As the bees drop, the natives catch them in cloths, carry them home, boil them and eat them."

"In Wales there are great areas devoted to the growing of leeks and onions for seed. The bees gather from the leek and onion blossoms honey that is freely flavored with the peculiar taste of those rank vegetables."

ROADSIDE WEEDS.

IT IS the general verdict among apiarists that to grow any known plant for its honey alone would scarcely be profitable; yet it is equally regarded as unquestioned that there are standard crops, as the clovers, buckwheat, rape, etc., which have a double value; that in themselves to the agriculturist, and in their nectar to the bee-keeper. As to the profit in growing these, there can be no question.

There are many roadside dwellers, however, comparatively unimportant because of their small numbers, which yet serve an important purpose in filling out gaps in the main honey flow. These plants are often destroyed through thoughtlessness or ignorance, when their preservation might mean a material increase of honey or pollen with no further sacrifice to the owner of the hives than a little so-called neatness. Weeds pure and simple are not attractive, yet when they assume the qualities of usefulness they are no longer weeds.

One of the most important of these for its individual merits, though by no means the most common, is the figwort, *Scrophularia nodosa*, rare in New England but found from New York to Kansas, North Carolina and Tennessee, frequenting woods and hedges. It is a weedy-looking plant from three to ten feet high, with a four-angled stem, leaves opposite and toothed, and small greenish-purple flowers. The latter are two-lipped, the two upper lobes being longer and erect, the lateral ones ascending, and the lower spreading and reflexed. Though to the botanist the corolla is beautifully constructed, the casual observer may, on account of the inconspicuous hues and shortness of the lobes, almost overlook it. Prof. Cook says that it affords abundant nectar from July until frost, and recommends it highly for scattering about in waste places.

A. I. Root offers seed of it under the name common among bee-keepers. Simpson honey plant. It is very hardy, blooms the first year, and is perennial, but needs renewing once in three or four years for the best results.

The great willow herb, *Epilobium angustifolium*, is another source of profit to the bee-keeper with almost no trouble. This plant is commonly known as fireweed, the downy seeds being blown far by the winds, and their vitality making them burst forth wherever brush is burned. Thus in newly cleared land the plant is common, and easily recognized by its large spikes of rose-purple bloom. It occurs from Labrador to Alaska, South to North Carolina and Kansas, in the Rocky Mountains to Arizona, and on the Pacific Coast to California, says Dr. Britton. Thus it would seem that it might be successfully grown in almost any portion of the United States. In Western New York it is a conspicuous and pleasing characteristic of the flora, while the newly cleared lands of Michigan teem with it. In the latter State it often gives a rich harvest to the apiarist, says Prof. Cook, who notes the beautiful clover tint of the honey. Surely a plant which combines so much of both the beautiful and useful should not be grudged a vacant fence row.

The cardinal flower, frequenting moist grounds either in sun or shade, is one of the most brilliant plants—in fact, there is nothing that will compare with it in the intense coloring of the corolla, unless it be the scarlet salvia of the garden. It is one of the lobelia family and readily submits to garden cultivation. Though yielding less honey than the above, its beauty should gain for it protection.

Boneset, common in waste places everywhere, is a plant of considerable importance for honey. Button-bush, a shrub found in moist grounds, with small white flowers in spherical heads, is also worthy of attention. Gill-over-the-ground, or ground ivy, is a too common weed which tides the bees over the gaps in the brood-reading period, and while the honey is dark and of an inferior quality, it serves the purpose of supplying food for young bees. Like many other plants, it does much better on garden soil than in the waste places in which it has become as thoroughly at home as though not imported from Europe. But this very fact would lead one to be wary of transplanting. It has the bad habit of spreading. Its near relative, catnip, is also a useful honey plant, yet not rendering itself obnoxious to the farmer.

This meager list might be greatly lengthened; it serves to show what the waste places keep in store.

Harmonsburg, Pa.

* * *

"Honey from buckwheat, blue thistle, cotton, orange blossoms, white sage, catnip, thyme and other plants, shows its origin in its distinctive hue and taste."

* * *

A NEW FOUNTAIN OF KNOWLEDGE DISCOVERED.

An Attractive Number Suggested for the Buffalo Programme.

BY A. Q. CUMBER.

Editor BEE-KEEPER: Please let me have a little space in your journal to offer a suggestion which if put into practice will result in more benefit to those who, like myself, will be at the Buffalo Convention, than any other feature of the programme can possibly do.

I shall claim the distinction of having discovered a source of information of which yourself and all the other bee-paper editors seem to be ignorant. The discovery was accidental, I'll admit, but this fact renders it no less valuable.

As stated, you seem not to know that we have with us a class of bee-keepers whose phenomenal knowledge of everything pertaining to the business obviously places them upon the ever increasing list of the world's wonders. Heretofore the bee-keepers' conventions have depended entirely upon that class who are still studying bee-papers and books; when, there is no doubt, we could as well have had the benefit of the teachings of some from the multitudes which have had no need of such literature for decades of years.

The man who thoroughly mastered the art and science of bee-keeping during a three weeks' visit to his grandfather's farm forty-seven years ago, is yet with us. I met him last week while making an overland journey of a hundred miles on horseback. He has to-day nine colonies in the back yard, and informed the writer that he "got nigh onto three buckets of the nicest honey I ever seen last year; and could just as well o' had twict that much" only for the necessity of having had to attend a funeral, during which time the moths took advantage of his absence to get in and destroy "two of the best skaps."

He had not read a bee-paper since "along in eighty or eighty-one," and has "been pretty well disgusted with bee-papers ever since." At that time some one sent him a sample copy, but he "couldn't see any sense to it;" and it is now his expressed opinion that "anybody that hasn't sense enough to have bees without signing for a paper on bees ought to be sent to the state legislature or go to preaching."

Think for a moment what it would mean to the fraternity to have this fountain of knowledge tapped at Buffalo next September. Why should not the Secretary of the United States Bee-keepers' Association profit by the oversight on the part of the management of the Pan-American, and secure this drawing card for the Convention?

The man who has no need to read is too many to be enumerated; I met several of him during my few days' ride. There would, however, be no necessity for having more than one of him present at the Convention, as a natural consequence of his unlimited wisdom. Let us, though, endeavor to induce one of this prodigy of learning to grace the occasion with his presence. Place the question-box in his charge, and hear him proceed with the confidence and force of a Western cyclone to elucidate his method of swarming his bees; and tell of the astounding fearlessness of his first, second, or third son in kicking the skeps, and taking the bees in his *bear* hands with the serene composure of a magician about to enjoy a feast of fire and ancient weapons of warfare. Hear him tell of the snowy whiteness of the wax his bees get in "some years," and how straining through five thicknesses of cloth fails to make that white which is gathered "other years." What he will tell of the construction of patent hives, so as to exclude the moth-miller, will revolutionize the products of our hive factories. His failure to see that the bees liked starters of foundation any better than they did empty frames or empty boxes, will probably start a new chain of thought among those yet reading the papers. His method of wiring foundation in pound-sections, he might not be induced to disclose; but that would render us none the less appreciative of the great amount of other information, *equally as valuable*, which would flow from his unselfish mind with the freedom and grace of an April shower, upon the famished fields of American beedom.

* * *

"Only by painstaking observation and a careful recording of what we see, can we advance."

PLANTING FOR HONEY

Not Profitable; yet Abundant Opportunities to Profitably Increase our Bee Pasturage.

BY HARRY L. SMITH.

WE often see the question in our bee-journals: "Can we increase the available pasturage of our bees at a profit by the cultivation of honey-plants?" and in answer we find all sorts of opinions, although the majority seem to agree that it is not profitable. Now, I will not attempt to prove that the cultivation of a plant can be made profitable only for what honey it will produce: but I believe we can increase the available blossoms at a great profit to ourselves. First, we will take the family of clovers. Until we get a race of extra long-tongued bees or a variety of red clover with short-tubed corollas, we shall have to consider the red clover useless for our purpose; but we have the alsike and white clovers, and much can be done with these. As a fodder, the alsike is richer in the nutritious elements than red clover, and here in the North it will produce fully as much hay per acre. It also has the advantage of thriving on heavy clay soil, where it would be impossible to get a stand of red clover. As a honey producer, many bee-keepers rank it as fully equal to the white clover; and it comes just at the close of the honey-flow from the latter, which is a decided advantage, as the colonies are strong and well fitted to store surplus.

Then, with a little care we can increase our pasturage of white clover. There are many of our stock pastures where white clover can hardly be found, that could be made white with it at the proper season and with great improvement to the grazing value of the land. In the autumn, just before snow falls, we go over our pastures and give them a light seeding with white clover, and we are almost sure to get a good stand. This increases the grazing capacity of the land enough to repay all costs and affords an opportunity for the bees to gather many pounds of honey.

In many parts of the country sweet clover can be used to increase the honey-flow; but I have tried it here without any great success.

Buckwheat is another great source of honey, and in most localities it will pay a good profit in grain. In our forests the basswood or linden can be increased with a little care, and its lumber is sure of a ready sale at good prices, when we get ready to cut it. It also makes an excellent shade tree, being of rapid growth and fine shape. Many other plants will suggest themselves to apiarists in other parts of the country; and I believe that if we make a judicious use of these plants in agriculture, we shall increase the value of our products and also furnish an increase of pasturage for our bees.

East Dixfield, Me.

* * *

> "White clover honey is generally considered the highest type of sweets. Sweet clover honey is somewhat sweeter, but is very highly classed."

LONGITUDINAL COMMUNICATION

The Means of Having Sections Filled and Capped Clear to the Wood.

BY F. GREINER.

THE most desirable sections of honey, in particulár for exhibition, are such as have been well filled and are capped clear to the wood. Twenty-five years ago, when using supers without separators, all of our honey, without exception, was capped clear to the wood, and in this respect could hardly be improved. When we adopted more modern supers with separators, imperfectly filled sections were rather the rule. I am not sure that honey for ordinary marketing purposes need be absolutely perfect and sealed all around, but I am aware that a section so filled presents a much better appearance.

The differences between the open super and the one with dividers, as they have been used for a good many years past are marked, rather—revolutionary. While the open super gave free communication in every direction, the new style super with its dividers separated each little comb from its neighbor longitudinally and laterally or transversely. The number of bee-spaces was also increased to nearly double the number.

We did not at the time attach very much importance to the less perfect filling, but now competition forces us to study into the matter and see if we cannot do a little better than our neighbor.

There can be no question that cutting up the super into twenty-four little separate rooms is the cause of the imperfect filling; but might it not be possible to obtain perfect filling and retain the separator? With the lateral communication the "fence" gives us, we seem to gain but little in the way of perfect filling and sealing. But how about the longitudinal free communication that has not been tested so universally? Therein lies the secret, as our experience has proven. When we first introduced the separator into our supers we had no wide frames to fasten them to. Making saw-cuts into the ends of our supers, we slipped the metal separators into them, thus dividing the super into six long and narrow chambers. The sections we used then were narrow, and so the bees had unobstructed free communication from comb to comb inside each long chamber. As a result, the filling of the sections was perfect, every cell sealed clear to the wood, just as it had been in the unobstructed super. No sooner than when we adopted the wide frame and a section of equal width, stopping all communication endwise, did we have poorly-filled sections to contend with, so we cannot help blaming this one feature more than any other.

Mr. Scholl, in the *Bee Keepers' Review* for May proves by his illustrations, reproducing a lot of filled sections, made with different appliances, that the communication endwise is most essential in producing perfectly filled sections.

I am not in favor of changing fixtures every few years; it costs too much money; still, it is well to know the facts. The Betsinger super gives the most perfect communication of any super I am acquainted with. The Hyde-Scholl super may come very near it. However, I am not ready to adopt either of them, and shall probably continue the use of regular cleated separator-supers for some time to come. In fact, I have only just adopted them.

Naples, N.Y., May 25, 1901.

HUNDRED-DOLLAR QUEENS.

A Kick and Several Indirect Jabs Aimed at the Editor and Other Objects—Our Industry Now Retrograding, through Improper Methods in Queen-rearing.

BY HENRY ALLEY.

SAY, friend Hill, I'm going to kick against your remarks on page 97, May BEE-KEEPER. There are a good many queen dealers in this country, and it is safe to say that any of them have some particular queen or queens that money cannot buy—that is, a reasonable sum. If there are any queen breeders who do not have queens worth, as breeders, at least $150, all such should go out of the business. Now, you must know, friend Hill, that first-class stock—"blood that's 'way up"—does not come from ordinary animals. Stallions, for instance, are valued 'way up in the thousands, some as high as $25,000. Do you suppose for a moment that all the offspring from such a valuable animal will be worth $25,000 each? Well, 'tis the same way with queen bees. I have several queens that, for the common bee-keeper, would not be worth more than one dollar each; but for breeding purposes I would not part with them. When I have a breeding queen that will duplicate herself in 90 per cent. of her progeny, I consider her worth anywhere from $150 to $200. All queens are not worth fifty dollars each; in fact, I have seen one hundred queens that would not be worth even a dollar for the entire lot; and to-day I believe there are hundreds of queens reared and shipped that are as worthless as so many flies.

In some of the bee-papers there have appeared articles on queen-rearing and profusely illustrated by queen-cells or cell-cups fastened to a stick. All the writers claim that their way of rearing queens is far superior to any other in use. The methods given and things illustrated are as far from the natural way of cell-building as anything can be.

Why go so far from nature's way to rear queen-bees? Why not rear queen bees by a method that comes nearer to the way the bee does it? Why spend so much time in making cell-cups and transferring eggs and larvæ? Give the bees a chance to construct cell-cups and to rear queens in their own way.

If queen-dealers persist in rearing queens the way they do, I really believe the bee industry of the world is on the road to ruin. Where are we to-day as compared to the years 1865 to 1885? In that period we had but one disease among bees; now we have a good many bad and fatal bee-diseases: Foul-brood, pickle-brood, dead-brood, dysentery etc. What is the cause of it all? 'Tis the way queens are being reared, in my opinion. In-breeding so much for color; rearing queens in chambers over the brood-nest and the cell-cup-and-transferring-larvæ mode of producing queens, is working destruction in thousands of apiaries in this country. Mother-bees cannot be otherwise than constitutionally weak. Her infirmities are transmitted to her progeny. Colonies are so weak that they cannot resist the inroads of disease. We must return to and adopt the methods for rearing queens that were in vogue thirty-five years ago. In those years there were no complaints about bee-diseases, spring dwindling etc.

If I had the time, friend Hill, I would like to discuss this matter at much greater length. I cannot get time to write articles for publication.

Wendham, Mass.

[We have become so accustomed to "kicks" that we do not mind them at all. We usually receive a number of them each month, either for having said some particular thing, or having failed to say it. However, it often occurs that knowledge is gained by these "kicks," and we always give them the same warm welcome which is extended to letters of commendation.

If we have ever said that any queen-breeder might not have a breeding queen worth two hundred dollars, it was so long ago that the matter has been entirely forgotten. Twenty years' experience as a honey-producer and breeder (or "raiser") of queens has given an appreciative idea of the value of a breeding queen having the desirable characteristics of such. All that Mr. Alley says of the great value of such a queen *to the breeder*, we can endorse; but nothing that he says has the slightest bearing upon the point which his article purports to criticise. We have condemned the practice of placing a fabulous cash value upon a breeding queen, as an advertising dodge. We believe it to be an imposition upon those who are not familiar with the business; and it is the mission of a bee-journal to guard its patrons against the loss and disappointment which is bound to result from such a catchy yet silly fad. It is not probable that any experienced poultryman would be deceived by an advertisement which offered settings of eggs "from a hundred-dollar hen;" but the enthusiastic novice would long entertain an intense longing for such valuable (?) stock. The fact that a queen-breeder might honestly decide in his own mind that he would not take $150 for a certain queen in his possession, would not justify him in advertising the same queen as a "hundred-and-fifty-dollar queen." We believe this practice was begun without weighing the result; and we believe Mr. Alley has seen about the last of such foolishness. Something more substantial and significant than dollars and cents will be used to designate merit in bees of the future.—Ed.]

* * *

"A beginner is quite likely to fall into the error of increasing his colonies too rapidly."

INTRODUCING QUEENS—THE YELLOW WAX DISCUSSION.

BY DR. C. C. MILLER.

REPLYING, Mr. Editor, to your question, page 85, the fact that so many have advocated and practiced introducing queens in the evening, while no one has reported adversely, is worth something as proof that there is reason for the practice. To your question why night (I should say evening) is better than day, I think it has been advanced that after bees have ceased to fly, there is not the same suspicion and fear of intruders as there is during the time of full flight. Suppose a new queen is in a hive, with only a short acquaintance. The effort of robbers to enter arouses a belligerent spirit in the bees, and while in that mood they may attack a queen not yet firmly established in her position. Indeed, they may ball a fully established queen, the latter being soon released, while the stranger will be hugged to death.

A few years ago I received from John Hewitt, of England, some Punic queens. He stipulated that they must be introduced to bees that had been utterly and hopelessly queenless for forty-eight hours, and quietly dropped in from above after bees had ceased flying. The introduction was entirely successful. Some importance attaches to this when it is remembered that these queens had made the long trip across the ocean, being thereby not in the best plight for introduction; that they were virgins, and especially that they were old virgins.

I do not see that there is any chance for a settlement or compromise between you and the editor of the *American Bee Journal* unless you will agree to stand on the same ground while taking view. Your view-points are different, and I believe each is right from his view-point. You are viewing the matter from the view-point of an expert, while he puts himself in the place of the beginner. Here's a cake of bright, yellow wax, which contains particles of dirt. You ask me what I think of the color of that wax. Knowing you to be well informed in such matter, I waste no time with explanations, but say: "The color is all right; get the dirt out." If a beginner should ask me, I should say: "It is the dirt in it that gives the dingy color to that cake of wax. When in the liquid condition, allow it to cool very slowly so as to give abundant time for the particles of dirt to settle, and you will then find the color all right." A question of this kind is not likely to come from any but a beginner, and dealing, as I so constantly do, in making replies to beginners, my sympathies are strongly with them; and while Mr. York's position may not bear the closest scrutiny from the view-point of an expert, you will pardon me for saying that his reply will be a very useful one to those most likely to ask the question.

Referring to the matter of introducing queens after a fast of thirty minutes, I cannot now say how I first got the idea; but I have used it for years; and, although it is one of the things about which it is difficult to be positive, I think it is a good thing.

Marengo, Ill., May 16, 1901.

[Enough has already been said upon the matter of slow cooling of wax and its influence upon its color. It is an important subject which ought to be understood by anyone who has ever handled beeswax. The claim that slow cooling is the secret of bright, yellow wax, is either a truth or an error, whether considered from the standpoint of an expert or a novice. Mr. York is eminently right in advocating that wax should be cooled slowly; but his claim as to the effect it will have upon the color is unquestionably erroneous.—Ed.]

* * *

"In some countries, lime-tree honey has a turpentinish taste when new. With age this rather rank taste softens into a most delicate flavor."

Boy a Victim of Bees.

Bloomsburg, June 3.—A young son of Millard McBride was almost killed to-day by a swarm of bees. The lad was playing in the yard when the bees settled upon him. His cries attracted his mother, who swooned upon seeing the child in agony. Regaining consciousness, she rushed into the swarm and carried the lad to a place of safety.—*Philadelphia Ledger*.

Want Relief from Busy Bees.

Residents of Haddonfield, N. J., appealed to the Borough Council on Wednesday evening, June 5th, for relief from a plague of bees. They averred that the busy honey gatherers, owned by Samuel V. Reeves, a fancier, made life almost unbearable for them. The Council decided that the bees were a public nuisance and must be taken outside the borough.—*Philadelphia Record*.

POINTERS BY "SWARTHMORE."

† If one could only be brought to think so, a China silk handkerchief, tucked up under the back of the hat so as to fall down over the shoulders, leaving the face uncovered, is quite as safe as a bee-veil and ten times more comfortable.—*Alley.*

† When the bees get ahead of you and build a nice, straight comb outside the follower, do not attempt to cut it out at once, but first trim off the top and place a top-bar down onto it in proper position; then, after the bees have attached the comb nicely to the top-bar, cut loose the sides and remove; brush off the bees, take it to the honey-house and fit side and bottom bars; replace the perfect comb inside the follower and give that colony an extra sheet of foundation to work on, or more box room above.

† If you want an extremely inexpensive little house to work or store in during the bee-season, use your storm vestibule, which would otherwise be useless during the summer. Cover the back with tarpaulin—that is the only expense connected with it. After the bee-season is over, put it up to the front door, as usual, to keep the wind away—see?

† A most excellent feeder for stimulating purposes can be made from burned-out electric incandescent lamps. With an awl turn back the brass which holds the little China disc at the end and remove that insulator; then carefully break away the glass so as to form a wide opening into the bulb. Fill the glass bulb with syrup, replace the China disc and insert the brass socket through a one-inch hole in the honey-board, directly over the cluster. The bulb holds just enough for stimulating purposes and the bees cannot remove the syrup so fast as to unduly excite the colony. If you live in a place near an electric lighting plant, mill or factory, you will find no trouble in getting all the burned-out lamps you can use, "for a song" or less.

⁂

"'Tis easy to tell another how to do a thing: 'tis another matter to do it one's self."

⁂

The National Bee-keepers' Association will hold its convention at Buffalo, N. Y., September 10, 11 and 12.

FROM OVER THE SEA.

A Review of Our French Exchanges.

BY ADRIAN GETAZ.

THE question of stimulating feeding in the Spring is in Europe as here, a kind of Banquo ghost awaking up every spring in presence of dwindling colonies.

The use of milk (*Revue Internationale*) is advocated as replacing pollen. It has the advantage of being already partially digested, if we may use that expression, and can be used when bad weather would not permit the bees to fly out and take flour. The milk is mixed with half its weight of sugar and the whole boiled together, to melt the sugar and prevent souring.

Dr. Hecq (*Progres Apicole*) rubs a few drops of kerosene on his hands to avoid stings. He says sometimes they start against his hands, but stop short when they realize that kerosene is there. It is not often that an experienced apiarist would need such a protection, but in such cases I would rather use the kerosene than wear gloves.

Another periodical ghost, also appearing in the bee-papers of all nations, is whether bees destroy their old combs and build new ones in their place. Notwithstanding the fact that the question has been fully settled and proof has been given several times (*Revue Internationale*) that combs have been in existence ten, fourteen, twenty and even twenty-five years, some "smart Aleck" bobs up occasionally, saying that he knows better; that "practice is better than theory," etc.

Several bee-papers state that honey from the "silver linden tree" is fatal to bees, and that they die in quantities when gathering nectar from its blossoms. The silver linden is a very ornamental tree, and should any attempt be made to introduce it here, it might be well to look into that matter.

Among the uses of honey, in Europe, the fabrication of a beverage called hydromel is frequently considered. Hydromel is somewhat alcoholic, and therefore in large quantities might be intoxicating. The fight against intemperance has taken in Europe a different turn than here. The attempt there is to charge a considerable revenue on whiskies and other decidedly unwholesome liquors, and encourage the use in their place of light wines, hydromels and other comparatively harmless beverages. The scheme will probably work there; but would not here, on account of our different habits and character. I think best to let the manufacture of hydromel aside entirely, so far as we are concerned.

A queen-trap is described and illustrated by Mr. Fievez, in the *Progres Agricole*. It is not so good, as far as I can see, as our American traps, except that the cover is formed by a piece of glass. For several years I have used a cover of wire-cloth. This has the advantage of not being so frail as the glass, and it has all the advantages of the glass. It gives plenty of light and thereby induces the queens and drones up at once. With the usual arrangement, the drones try first to get out through the perforated zinc; and only a hundred or two of them are sufficient to blockade almost completely the entrance for two or three hours every afternoon. With an abundant light shining through the cover and the cones, they come up at once and are out of the way of the workers. If swarming occurs or has occurred during the absence of the apiarist, it is easier to see the queen through a glass or wire-cloth cover than through a perforated zinc.

Among the advertisements of the *Revue Internationale*, I see an "apiarist's pipe." I suppose that refers to a kind of smoker in the form of a pipe. The apiarist holds it in his mouth and blows the smoke through it. This has the advantage of permitting him to work with both hands. I don't think such a thing could replace the regular smoker; but I have many times felt the need of something in that line when examining combs for finding the queen, cutting cells etc., just to keep out the bees that might be in the way, or sending off those that might get obstreperous, without having to drop the comb and grab the smoker. If I am not mistaken, the Frances and Henry Alley are using some implement of that sort.

Mr. Ruffy (*Revue Internationale*) in presence of delegates of the *Societe Romande* removed a queen from the comb and put another, taken from a nucleus, in her place, and then replaced the comb in the hive. That is his usual way of requeening. This must be done quickly; if some of the bees realize that the old queen is missing, they will ball at once the new one and kill her.

Mr. Mercier (*Progres Agricole*) says that a queenless colony will not always accept a queen-cell at once. But he has always succeeded in introducing the cell the third day after removing the old queen, destroying at the same time the cells already started by the bees.

Mr. Rogers (*Progres Apicole*) in order to find the old queen, removes the hive to another part of the apiary, takes out three or four combs, shakes the bees off and puts them into a new hive on the old stand. Later in the day, or the next morning, only the young bees are in the old hive. The queen can easily be found, and then the whole re-united on the old stand. He re-queens every year.

◆

"In Guiana, when a native negro is stung by bees, his revenge is to capture and eat as many bees as he can."

"In the islands of the Caribbean Sea the natives eat young bees, either raw, roasted or boiled."

OUR
CORRESPONDENTS

Portland, Me., June 10, 1901.

Editor AMERICAN BEE-KEEPER: I should like some information in regard to an experience which I had last summer. While looking with a neighbor for queen-cells, I received a sting on top of the head and two on the arm. In fifteen minutes I was completely overcome—was unconscious for two hours. This being our first experience of the kind, my wife rushed for a doctor. I had no pulse at all; that is, the doctor could not take it. After a while I came out all right. Have not seen the doctor since, and did not ask him anything about it. I have been stung twice this year with similar results. My arm is now swollen quite badly from a sting received on Saturday, the 8th. I don't mind it, only the bad feelings in my head and stomach for the time; it seems to poison me. I took a fair dose of whiskey and did not quite lose my senses. Now, isn't there some antidote to counteract the stings in my case?

Very truly yours, J. W. PARKER.

[Instances similar to that related by our correspondent have been reported in the past; though, we believe, such ill effects usually occur only to those unaccustomed to stings. A few good doses of this same poison circulating through the system is the best antidote of which we know. The swollen arm is nothing more than would be liable to result from a sting received by any beginner. It would probably be a good plan to compel an occasional sting upon the hand or arm until the system becomes inoculated. Such a course of treatment would in a measure render one immune, in the event of a sting being received in a more vital spot. It is the opinion of this journal that the greater part of the suffering resulting to beginners through stings, is directly attributable to the improper manner in which the sting is extracted. If an open knife-blade could be at hand when stung, so that the sting might be immediately scraped out, instead of being grasped with the thumb and finger, the pain and swelling so frequently complained of, would be greatly reduced. The time necessary to get one's knife ready for the operation however, renders this means impracticable; but a quick stroke with the finger-nail does the work nearly as well, and has the advantage of always being in readiness. The pressure exerted upon the poison-sac in attempting to withdraw the sting in the way ordinarily done by a novice, is eminently calculated to inject all the poison, pain and swelling possible. Scratch it out, and do it quickly; then refrain from rubbing the wound; rubbing only diffuses the poison and adds to the ill effects. An immediate application of ammonia or hartshorn we used to think an advantage. This alkali will tend to neutralize the acid poison. From five to twenty drops of ammonia taken internally, in very severe cases of stinging, has been recommended for an adult. A few drops of camphor is also said to be beneficial in such cases. An application of cold water has a soothing effect in case of severe pain. Prof. Cook recommends a strong solution of saltpetre. There are "remedies" without end; but the best of all is to so manage as to get as few stings as possible by careful handling, and when stung, accept it as a necessary part of the business, with good grace; and the time will come when but little heed will be given to a few stings.—ED.]

Rock Valley, N. Y.; May 13, 1901.

Editor BEE-KEEPER: In regard to fastening foundation into sections, to which I referred in your May number, would say: I got the idea some time since from the American Agriculturist, where it appeared fully illustrated. After having given it a trial, I have discarded my Daisy and pressure fasteners. Take a smooth board about 8x20 inches, nail to it four blocks equal in thickness to half the width of the section used; have them close together, though not crowded, so that the sections will drop freely over them. Have melted wax in a handy position, and provide a piece of tin having a straight edge, 4x5 inches. Place the starters inside the sections, upon the blocks; dip the edge of the tin into the wax, allowing the surplus to drip, and quickly place the edge inside the section, against the form or block, using the right hand, and with the left bring the starter down against the tin and quickly withdraw the latter. The tin should be placed at a slight incline to prevent smearing the section. With practice the operator will learn to fasten all four starters without redipping. Beginners who do not have the dollar, can make all this themselves without cost, and have less foundation breaking down. True, it takes a little more rough wax, but not so much of the costly thin foundation. Very truly yours,

E. J. HAIGHT.

P. S.—The propolis scraper spoken of in a former letter should have the handle bent around to the center of blade, then drawn out at right angles, giving an even pressure the full length of blade.

E. J. H.

Titusville, Pa.; June 3, 1901.

Editor AMERICAN BEE-KEEPER: Enclosed please find fifty cents to apply on my subscription account. I should like to ask brother bee-keepers, through your journal, how I shall construct a hive, or fasten those I have so robbers and thieves cannot get into them. My bees are three miles out in the country, and it is not always convenient for me to be there to watch them. I would be thankful for information. Respectfully, S. CHASE.

Westville Center, N. Y., May 27, 1901.

Editor AMERICAN BEE-KEEPER—Will you kindly explain to a greenhorn the benefits, and what is expected of a member of the National Bee-keepers' Association? Respectfully,

WILLIS H. FREEMAN.

[Space will not permit us to enumerate the many advantages of supporting the National Bee-keepers' Association, here; but would suggest that our correspondent write to the Secretary, Dr. A. B. Mason, Station B, Toledo, Ohio, for a copy of the constitution and other literature pertaining to the Association. Bee-keeping is yet an infantile industry, so to speak; and it is to become a great industry through the efforts of those progressive ones who have been brought to appreciate its possibilities. Mr. Freeman is beginning right, by making this inquiry, and it is a pleasure to direct him to the fountain-head of information in regard to this great movement. No more difficult requirements are imposed upon its members than the contribution of one dollar a year, toward the defense of bee-keepers' rights and the general advancement of our pursuit. One of the first duties of every bee-keeper is to enroll his name upon this list, thereby protecting himself as well as his brother bee-keepers against imposition; and declaring his rights to recognition as a twentieth century, progressive bee-keeper. A man who has recently subscribed for the AMERICAN BEE-KEEPER and is already making inquiry into the National Bee-keepers' Association, is not long for the "greenhorn" list.—ED.]

PRACTICAL TALK ON BEES.

Rutledge, Pa., June 7, 1901.

August Weiss, a well-known amateur apiarian, of Rutledge, Pa., gave a practical talk before the Rutledge Lyceum, recently, upon his favorite hobby, which he elucidated in a masterly manner. He took particular pains to dissipate the superstition that bees were destructive to fruit, and showed the absurdity of the matter by enlarged drawings of the mandibles or jaws of the honey gatherers, making a comparison with the serrated jaws of the wasp to prove that the latter insect was the real mischief-maker that cut into the skin of grapes, plums and peaches. Mr. Weiss also sketched the matter of artificial queen-rearing and had a complete outfit of bee-materials at hand to explain each part. M. F. REEVE.

* * *

"If we would succeed we must be constant in our purpose."

* * *

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY BY
THE W. T. FALCONER MANFG. CO.
H. E. HILL, - - - - - EDITOR.

Terms:

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Advertising Rates:

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Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

☞ Matters relating in any way to business should invariably be addressed to
THE AMERICAN BEE-KEEPER, Falconer, N.Y.

☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to
H. E. HILL, Fort Pierce, Florida.

☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

☞ A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

In response to the question, "Does bee-keeping pay?" Mr. N. C. Alford, at the Minnesota Convention, said he had kept bees for eight years, and after paying for the bees, the supplies and help hired, he had cleared in that time six thousand dollars. This was from about 250 colonies kept in Colorado.

The editor kindly asks subscribers not to make checks and orders for payment in his name, and not to address correspondence to him relating to subscriptions, non-receipt of copies, change of address, etc. All such letters, if addressed to The W. T. Falconer Manufacturing Co., Jamestown, N. Y., will be promptly acknowledged; but if addressed to the editor unnecessary delay is incurred.

An erroneous theory long promulgated by some of the journals, is that in moving combs by wagon, they should be placed lengthwise; it being thought they would carry more safely. A practical test of the matter is reported in *Gleanings* by H. H. Porter, which shows that it is better to load the combs crosswise. This experience coincides with the doctrine long preached by Dr. Miller; but the theorists would hear him not.

The New York *Herald* for May 10 presented an interesting half-page write-up of Mr. F. G. Herman, the gentleman who has contributed an article on house apiaries to this number of THE BEE-KEEPER. The *Herald's* article was elaborately illustrated with views in and about Mr. Herman's apiaries; though the reporter fully sustained the reputation of his profession, by making a mess of the information given him in regard to bees and bee-keeping.

We have learned that there are yet several hundreds of bee-keepers in this country who have not subscribed for THE BEE-KEEPER, and in order that they may do so at once, we have decided to give them the opportunity to become acquainted with the paper, by reading it for six months, for ten cents. Send in your dime and have your name enrolled for six months. We believe you will stay with us. This offer is made only to those who are not now subscribers.

Mr. Thaddeus Smith, in the columns of the *American Bee Journal*, some time ago, labored strenuously to discredit the generally accepted fact that bees are necessary to effect a thorough pollenization of fruit-bloom. Mr. Doolittle in a later issue reminds him of several experiments formerly conducted, the result of which were irrefutable arguments to the contrary. It is not probable that Mr. Smith will have a great following, either in the ranks of the bee-keepers or the growers of fruit.

In this number of THE BEE-KEEPER we present a picture in colors. For nearly a year we have been endeavoring to work out a practicable plan of producing pictures in natural colors, in THE BEE-KEEPER. The process attempted this month is wholly an experiment, of which we have some hope. The subject includes three leaves and a single festoon of the saw palmetto bloom, with a copy of THE BEE-KEEPER to show comparative size. This shrub is to the Florida bee-keeper what white clover is to the northern producer of honey. Hundreds of thousands of acres of Florida sand are covered with a scrub growth of it, while in moist and richer localities it grows in impenetrable jungles and is one of the most beautiful of our sub-tropical palms. In the event of our ability to achieve satisfactory results by this method of reproduction, we should be pleased to receive good photographs of prominent nectar-producing plants from all parts of the country, such as linden, the clovers, sage, appleb lossoms, goldenrod, asters, raspberry, etc.

BEE SUPPLY EXHIBIT AT BUFFALO.

We are informed that the publishers of the AMERICAN BEE-KEEPER, The W. T. Falconer Manufacturing Co., has an exhibit of some of their products at the Pan-American Exposition. Visitors will find the exhibits of The A. I. Root Co. and The W. T. Falconer Manufacturing Co. together, in the gallery of the Agricultural Building; so that those interested will see the respective lines of these two leading manufacturers side by side. We have no doubt that this joint display will be a central point of interest to attending bee-keepers—in fact a sort of bee-keepers' rendezvous. In a private letter, such as frequently pass between the publishers and the editor, we are advised that the display is not an extensive one; but that a photograph of it would be made at the first opportunity, for publication in THE BEE-KEEPER. The ornamental frame-work about the exhibit was made in the Falconer factory. We hereby take it upon ourself to cordially invite readers of THE BEE-KEEPER to call and make themselves known.

* * *

Carlyle says, "Literature is the thought of thinking souls."

* * *

Honey and Beeswax Market.

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc,

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Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

NEW YORK, June 20, 1901.—There is no comb honey on this market, nor is there any offering in the country, that we know of. Just at present there is no demand from the consumers. Extracted honey is plentiful with but little demand at the present moment. Beeswax is in good demand at from 27 to 28 cts. per pound. Our former quotations on comb honey will hold good for the present.
FRANCIS H. LEGGETT & CO.

CHICAGO, June 19.—The new comb honey has not reached this market yet; it would sell at 15 @ 16 cts., if choice white, and the ambers at 12 @ 13 cts. The market is entirely bare with exception of a few cases of a lot that we had held for us, expecting it wouid be needed. Advices are that shipments will be started by July 1st. Very little trading is being done in extracted, as large dealers will not contract this season unless at low figures. Some sales of amber have been made at 4½ @ 5cts. for early autumn delivery. White is held at 5½c. Beeswax sells at 30c. R. A. BURNETT & CO.

KANSAS CITY, MO.; June 20.—We have a good demand for honey, but supply is very light. Price of white comb, 15c.; extracted 6 @ 7½. Demand for beeswax is good with light supply, at 30c. a lb. Very few cases of honey on this market. Prospects for new crop with us is poor.
HAMBLIN & SAPPINGTON.

BUFFALO, June 19.—The demand for honey at present is very light with small supply. Price of comb. 7 @ 15c. Extracted, none. Beeswax is in fair demand with light supply and sells at 27@28c. There is no demand for honey during berry season.
BATTERSON & CO.

* * *

"The famous 'honey of Attica,' in Greece, was made from the thyme of that country, in the old days."

LITERARY NOTES.

THE COSMOPOLITAN for July gives a solution of the problem, What to do with one's summer vacation, in a well-written, illustrated article entitled, "A Houseboat—The Modern Palace." Most people have neither the money nor the wish to go to an expensive, overcrowded seaside or mountain resort, and yet every man needs a few days devoted to pleasure and a complete rest at least once a year. Undoubtedly a houseboat offers a cheap and comfortable vacation, and the ranks of its devotees are constantly swelling.

THE LADIES' HOME JOURNAL for July contains an article by Margaret E. Sangster, entitled: "Good Advice to Girls Who Travel." The young girl who is traveling by herself should seek information from the train people rather than from her companions on the train. No girl in traveling should make confidantes of strangers of either sex, disclose her name, her destination or her family affairs, or make acquaintances on the road. She may, however, show kind attention to a mother traveling with little children, amuse a wearied little one, and politely thank any one who does her an unobtrusive kindness.

* * *

CONVENTION OF THE NATIONAL BEE-KEEPERS' ASSOCIATION,

To be Held at Buffalo, N. Y., September 10th, 11th and 12th.

The following notice has just been received from Secretary A. B. Mason:

OFFICE OF THE SECRETARY,
STA. B, TOLEDO, O.; June 25, 1901.

Editor American Bee-keeper: Will you please say in your next issue that all arrangements for the next convention of the National Bee-keepers' Association have been completed in so far as possible and that the Convention will be held in the audience room of the Buffalo Society of Natural Sciences, in Buffalo, N. Y., on the 10th, 11th and 12th of September next, commencing on Tuesday evening. The Natural Science Society, through its President, Mr. Smith, has also very kindly offered our association the use of their library and other committee rooms during the time of our convention; and to do all in its power to help make our convention a success. The place of meeting is in the Buffalo Library Building, corner of Washington and Clinton Streets, near the business center of the city.

Railroad rates will vary in the different passenger association territory, from one cent a mile each way to one and one-third fare for round trip. Each one can readily learn the rate on inquiry at their railroad station.

The Buffalo bee-keepers will try to provide entertainment at reasonable rates for all bee-keepers who will notify Mr. Sidney S. Sleeper, of Holland, N. Y., by September 2, of their wish for entertainment. In a letter just received from Mr. Sleeper, he says: "We want all to come who can, for we wish to make the Buffalo meeting the most pleasant and instructve one that was ever held in America. We will have the co-operation of all the sciences as well as the School Board," and names some professional men who are interested in our specialty, and who will be at the convention to help. In a long letter from Mr. Herschiser, just received, he closes by saying: "Call upon me for whatever further assistance I am able to render;" and Mr. Penton, an ex-president of the local bee-keepers' society and others, have offered to do all they can to provide for the comfort of the delegates.

As stated in my previous convention notice, there will be no fixed program and no papers, for the time will be occupied in answering and discussing questions, except that on Thursday evening there will be a joint session of the association with the American Pomological Society, to discuss the "Mutual Relations of Bee-keeping and Fruit-growing." Prof. Beach, of the New York Agricultural Experiment Station, and Prof. Fletcher, of the Central Experimental Farm, of the Dominion of Canada, will help to talk for the bees at that session; and it is hoped that much will result to the fruit-growers and bee-keepers from this joint session. If any bee-keeper, who cannot attend the Convention, has any knotty or other questions he would like to have answered at the Convention, will send them to me, I will see that they are presented. A. B. MASON, Secretary.

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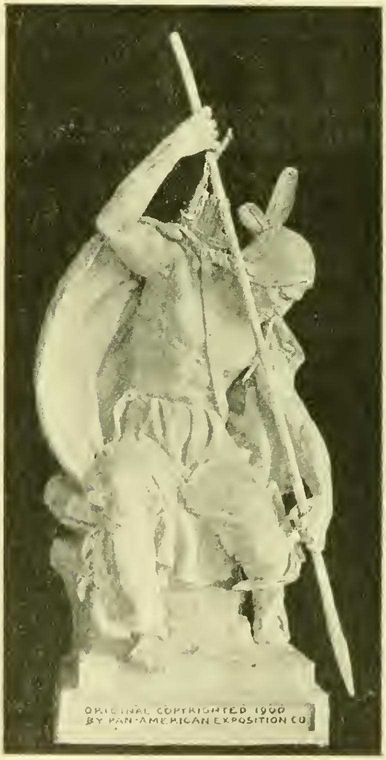
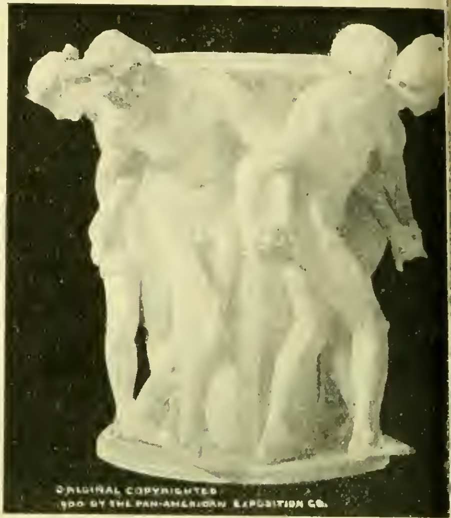
COST OF SEEING THE PAN-AMERICAN: Lodging, $1.00; three meals, $1.50; admission to the grounds, 50c.; incidentals, 50c. Total for one day and night, $3.50.



LAKE HURON, BY LOUIS A. GUDEBROD.

This figure occupies a niche in the west wing of the Electric Tower, and Lake Huron is typified by an Indian, since this one of the great lakes has been named after one of the powerful Indian tribes which occupied lower Canada at the time of the first white exploration and settlement. The face and figure of the Indian are finely and vigorously modeled.


ORIGINAL COPYRIGHTED
1900 BY THE PAN-AMERICAN EXPOSITION CO.

GROUP OF THE "FIVE SENSES" BY CHAS GRAFLY.

This group supports the upper portion of the Fountain of Man," by Charles Grafly, in front of the main United States Government Building.

SURPASSING BEAUTY.

The following editorial reference to the Pan-American Exposition is made by the Toronto (Ont.) World:

"The Pan-American Exhibition cannot fail to draw immense crowds of people. Buffalo has really produced a spectacle of the first magnitude. Nothing has ever been designed in ancient or modern times to equal the view that is presented from a dozen different points within the grounds. The architecture, the coloring of the buildings, the illumination, the water effects, the statuary, easily surpass the efforts of the Chicago people in their great World's Fair of 1893. The feature of the Pan-American spectacle is its condensation. It covers a much less area than the World's Fair. Everything is compact and the eye is surfeited with the combination of beautiful effects that everywhere meets it. We imagine that even Paris will readily acknowledge that its efforts of last year have been surpassed by the architects and artists of the New World. As far as the illumination goes, nothing, of course, has ever been attempted on such a magnificent scale as is seen at Buffalo. Within the space of a few minutes the grounds are converted from twilight into a beautiful incandescence, soft, yet powerful, a combination of sunlight and moonlight. It is not only what one actually sees that appeals to the imagination, but even to a greater extent, the great forces that are at work producing these grand results. Niagara Falls is the great unseen exhibit of the Pan-American Exposition. The Exhibition itself is the Gun, but the Falls is the man behind the gun that does the work. There is no excitement, no sign of exertion, no sweating in the case of the man behind the Exhibition. The mighty cataract turns the exhibition grounds into a blaze of light with as little exertion as a steam engine would operate a peanut roaster.

$200 Red-clover Queen.

OFFER No. 35.

ON SEPTEMBER 1st last we announced that we finally had a red-clover queen fully equal to the one we had years ago. The colony of this queen has given one of the most remarkable showings on red clover of any bees we have ever had. The queen in question is an imported one, and therefore of the genuine pure leather-colored Italian stock. We sent out daughters from her all the season. But we did not discover her value until the clover season, second growth, came on, and then her colony so outdistanced all the other 450 that she attracted attention at once.

It must be understood that these queens are not golden yellow, neither are their bees of the five-banded stock. They are simply leather-colored Italians, whose mother came direct from Italy.

Since the notice appeared regarding this queen we have hardly been able to supply all of the queens that were wanted from this stock. Many daughters of this queen we sent out before we knew her value, and it now transpires that some of the finest bees in the land are from queens we sent out early. We are now booking orders for the coming season, and make the following offer, but no queens will be furnished except to those who subscribe for GLEANINGS, and only one with each year's subscription. All arrearages must be paid to the end of this year. Gleanings for 1901 and one untested red-clover queen, $2.00; Gleanings one year and a tested red-clover queen, $4.00; a select tested red-clover queen and Gleanings one year for $6.00. We will begin mailing these queens in June, 1901. Orders are already being entered, and the same will be filled in rotation. Do not neglect to improve this opportunity and get some choice stock, and send your order early so you may get the queen correspondingly early in the season. We are using every precaution to winter this queen safely, but reserve the right in case of her loss this winter to substitute from other select tested stock of this strain which we are holding in reserve, or to give the subscriber the benefit of any of our other clubbing offers if desired.

The A. I. ROOT CO., Medina, Ohio.

QUEENS

Improved Golden, and Leather Colored Italian,
is what H. G. Quirin rears.

We have one of Root's best Red-clover breeders from their $200 queen and a Golden breeder from Doolittle, who says, "If there is a queen in the United States worth $100, this one is." These breeders have been added to our already improved strain of queens for the coming season.

J. L. Gandy, of Humboldt, Neb., wrote us on Aug. 15, 1900, saying that the colony having one of our queens had already stored over 400 pounds of honey, mostly comb. He states that he is certain our bees work on RED CLOVER, as they were the only kind in his locality and apiary.

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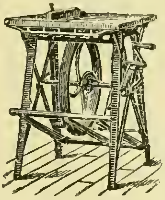

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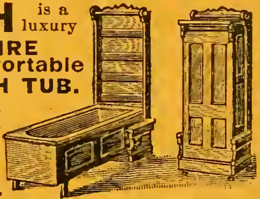

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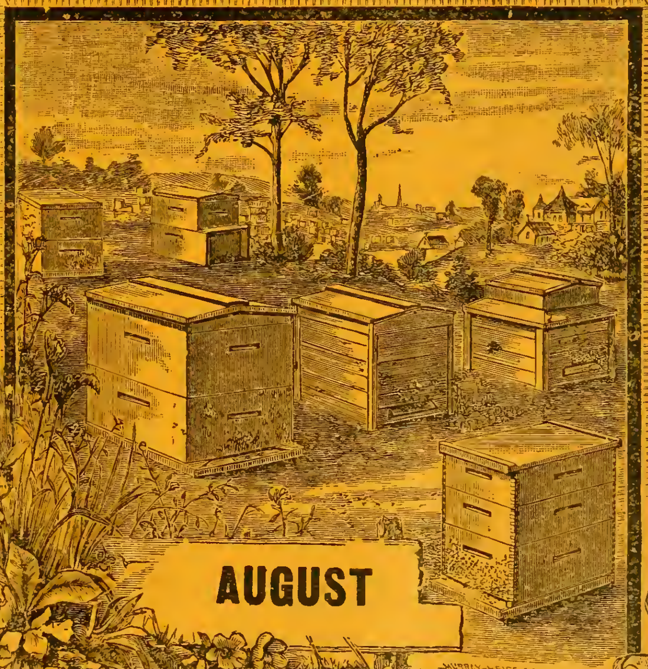
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AUGUST

1901

Vol. XI
No. 8.

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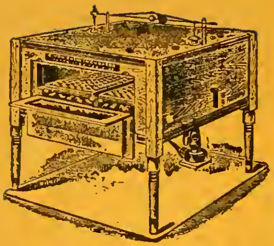

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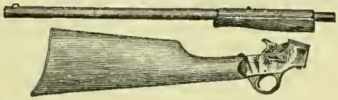

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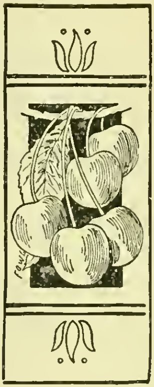

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI AUGUST, 1901 No. 8

REARING QUEENS.

The Alley Method Recommended for General Use; and Why.

BY ARTHUR C. MILLER.

THIS article is intended more particularly for those bee-keepers who raise queens solely for their own use: and yet those who make a business of raising them for sale may find something of interest in it.

The first and foremost consideration is the selection of two queens for breeding stock, a matter by no means easy. To be able to form a fair estimate of queens for such purposes, they should have been under observation for at least one winter and one summer; and it is better if two such periods have elapsed, or even three, if we are seeking for longevity as we should. The other qualities to be looked for are vigor, nectar gathering, comb building and temper. Vigor embraces strong constitution, good wintering and general activity. Nectar gathering is qualified by the kind of nectar gathered, as well as by the quantity. I have often noticed that some one or more colonies will fill up with white honey, while the rest of them are storing mostly a darker grade. Comb-building is not of much consequence to the person producing extracted honey other than that a disinclination to build comb would perhaps be an advantage, for I do not believe that wax secretion is involuntary except in a very limited sense. But to the person producing comb-honey, the speed in building, the evenness, the capping etc., all should be observed.

After two queens are found whose bees possess the above described qualities in a reasonable degree, let the factor of temper alone. If the bees are gentle, well and good: if not, then make the best of it, but don't go and spoil future honey crops for the sake of having gentle bees. The breeders having been found, set one apart for a drone mother and supply the colony she is in with an abundance of drone-comb.

The next consideration is the selection of the system by which the queens shall be reared. The factors in that are, first, quality of queens it will produce; second, labor; third, expense in bees. I believe the Alley system is by far the best one yet devised for producing the highest grade of queens: also that by it this result is attained with a minimum amount of labor. The expense in bees is the least item, and there is but little difference as regards it between the different systems now in vogue.

Mr. Alley's procedure is as follows: Deprive a colony of its combs and queen and confine the bees for several hours in a well-ventilated hive or box placed indoors. Then a piece of comb containing eggs is cut into strips of one row of cells each, the egg in each alternate cell on one side of the strip is destroyed, and the strip is affixed by its opposite side with melted wax to the lower edge of a half-depth comb. This is then given to the confined bees, together with combs of honey and pollen, and at night the hive is set out of doors and the bees released. When the cells are nearly ready to hatch they are cut off, caged and returned to the bees. The young queens are later given to nuclei, and as soon as they begin laying they are used where wanted.

With any method we must have a colony for cell-building (the “upper story” plan may do to potter with, but is not suitable if one wants more than two or three queens). Also by any method we must have nuclei for the young queens, so the difference in labor between the Alley and the “cell-cup” plans centers in getting the eggs or larvæ ready for the cell-building bees. Mr. Alley recently in my presence got eggs for sixty queens started in eight minutes, and this included lighting an oil stove to melt the wax, getting the eggs from the breeding-queen, cutting up, preparing the strips, and giving them and the other combs to the cell-builders. Certainly no one will pretend to be able to make sixty cell-cups, stock them with larvæ and get them to the bees in any such time.

Mr. Alley's system produces as fine queens as can be reared by any plan now known and is used by many of the leading queen-breeders in this and foreign countries. I saw at Mr. Alley's a lot of young queens and from their size I thought that they were laying queens recently caged, until he informed me to the contrary. As the “Adels” which he raises are not exceptionally large bees, the size of those queens could only be attributed to the method of rearing.

On the quality of our queens depends the quality of our colonies, and if this is not of the highest, our success is limited accordingly. Also, inferior queens mean bees less able to resist disease. I am not in sympathy with those persons who decry the departing from “Nature's ways,” for our whole system of bee-culture is a departure from it. There are certain fundamental laws which must be observed in all our dealings with Nature; but as long as we do so, we may vary the details of our procedure to suit our convenience. By the “cell-cup” plan, perhaps as perfect queens *can* be produced as by any other: but in the hands of any person but those of an expert, there are many chances of producing inferior queens. Queen-rearing is a branch of our industry that is entitled to our utmost thought and care.

Providence, R. I., June 28, 1901.

> Direct not him whose way himself will choose,
> 'Tis breath thou lack'st and that breath wilt thou lose. —Shakespeare.

PREPARING HONEY FOR MARKET.

BY G. M. DOOLITTLE.

By the time this reaches the readers of The American Bee-keeper, the larger part of the white comb honey crop will be off the hives and the apiarist will be thinking of how he will put it up for market, in order that it may sell at the highest possible price. And one of the requisites toward a good price is to take the honey from the hives as soon as it is sufficiently ripened, which is generally the case as soon as each section has the comb in it thoroughly sealed over; and if taken off when so sealed the combs will have that beautiful white appearance which is so captivating to the eye.

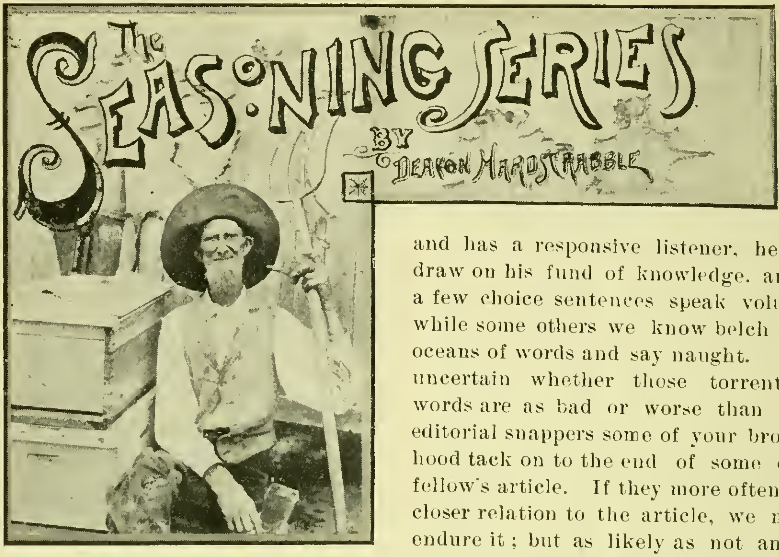
I consider it a great mistake to leave section honey on the hive very long after the combs in them are fully capped over, as the little extra ripening of the honey which may take place later on, cannot in any measure compensate for the dingy appearance which the capping to the combs will assume. And if the temperature of the room in which the honey is stored, when off the hive, be kept at from 85 to 95 degrees, the honey will ripen just as thoroughly and just as nicely as if left on the hive; and no room is fit to store honey in for any length of time which cannot command such a temperature; for with a cooler temperature, especially if the room is damp, the combs will soon have a watery look to them, this being caused by the dampness causing the honey to swell or expand until it touches the capping to the cells; and, if long continued, will cause the cells to "weep" and the honey to sour. If the temperature mentioned above cannot be maintained, or very nearly so, in the room in which we store our honey, an oil stove or heater will be found an excellent thing, as the wicks can be turned up or down so as to give the desired temperature at all times. Having it in such a warm room, it will be necessary to look at it often, for this high temperature will cause the eggs of the wax moth to hatch, should there be such on the combs. If little flour-like lines are seen on many of the combs, thus showing that the little larvæ have commenced their work, it will be necessary to destroy them in some way, or they will soon spoil the nice looks of the capping and cause the honey to run out of the cells.

When such flour-like places have been found, it has been my custom to sulphur the honey, which is done by setting an old iron kettle having ashes and live coals in it in the room, when one-fourth pound of sulphur is poured on for every two hundred cubic feet contained in the room. Care must be used, for it is quite a nice point to get enough sulphur to kill the moth larvæ, and at the same time not to burn so much as to color the combs; for if too much is burned, the combs will take on a greenish hue, which will injure its sale in the market.

Having the honey thoroughly ripened,—and sulphured if necessary—the next thing is to crate it. The propolis should be carefully scraped from each section, so that none of the slovenly look shall be upon it which we sometimes see in honey where no attention has been paid to this propolis matter. Before commencing to scrape the propolis off, three sections should be selected which will fairly represent the pile of honey, when. as each section is finished, it is to be held up near these so as to tell into which grade it shall go. It may be necessary to make more than three grades in some parts of the country; but with me three grades are sufficient for each source of honey. And it is best never to mix honey from different sources together; so we will put the clover, basswood and buckwheat honey, each into three grades. I use x's to distinguish these grades, xxx being the very best, xx good and x the poorest. Then I have three crates setting within easy reach of me. and as soon as a comparison with the sampled three tells me where the section last scraped should go, it is set in the proper crate, and so on, till the crate is full. If you wish to have the honey take the name of "gilt edge" put on the cover to the crate with bright, round-headed screws. This gives the crate a nice appearance, does not tend to break the honey by driving nails when the honey is in the crate; keeps the bottom of another crate from coming in contact with the nice, white cover to the first, where two or more are piled on top of each other, and the cost is but a trifle above the nails. Now sandpaper off the sharp corners or any rough or dirty-looking places. and you, yourself. will have to admit that this little extra work has made an attractiveness to your package which will more than compensate you for all of your trouble. And what looks attractive to you will be the thing that will catch the eye of the customer. Having all thus crated, pack nicely away for shipment, when a sale is made, or to show to purchasers or any company who may chance to call in.

Bear in mind, comb honey sells from its looks very largely, and the nicer the appearance the better price it will bring.

Borodino, N.Y.



Dear Brother Hill:

It's hot! It's so hot that stings feel cool by comparison. But for compensation we have had a flood of honey, and all sorts of receptacles have been pressed into service. Wish I could have had here one of those fellows who do so much *writing* about being prepared. He would have had to stop writing and do some huge preparaing. As I roam among the "boys" I find that their practicing is seldom up to their preaching.

Writing of preaching, reminds me of the Parson. An epidemic broke out here—bubonic plague, everybody said—and then came a revival. The "plague" proved to be the measels; the "revival" flattened out and, to repeat one of the Parson's quotations:

'The devil was sick—the Devil a monk would be:
The devil got well—and devil a monk was he."

Don't think too harshly of the Parson: he's bilious—is keeping bachelor's hall. Just like some of the rest of the boys, isn't he? Some of them seem bilious most of the time, though. But, as you know, when the Parson is feeling well and has a responsive listener, he will draw on his fund of knowledge, and in a few choice sentences speak volumes, while some others we know belch forth oceans of words and say naught. I am uncertain whether those torrents of words are as bad or worse than those editorial snappers some of your brotherhood tack on to the end of some other fellow's article. If they more often bore closer relation to the article, we might endure it; but as likely as not an editorial homily on babies is hitched to an article on "foul-brood." And you have started into the same bad way. Avaunt, there, ere the evil tide o'erwhelm thee!

So the man from Creek objects to having you criticise his double-compound self-assorting-drone-queen-catcher? You should never meddle with an inventor's hobby; 'tisn't safe. Now, there is that mild-mannered Rambler, just mention "wire and frames" to him—and then take my advice, and run. Why, the Aiken-Fowls prize fight isn't a circumstance to what will happen to you!

The Parson, in addition to his other troubles, has been trying the Swarthy Moor's nucleus system, and such a mess of swarming out you never did see! The founder of the house of Root tried those toy nuclei years ago, and then tried something else. Mayhap the S.M. has some secret way. He is one of those "Down East" Yankees, and there's no telling what they'll do.

"Nothing succeeds like success;" if you doubt it, see how successfully that Dowagiac free lance has bobbed up in the *Review*. How he can ruffle the boys! Showing up another's foibles generally does that. Time 'twas done some more; so please try and pull J. H. from his retirement. There is that fun-loving Dr. of Toledo who makes things so lively at the conventions; he's keeping awfully quiet. Just roll a ball his way and see how kittenish he can be. And what has happened to that canny Scot of Lapeer who used to do such artistic prodding in the *Review?* Where, forsooth, are several of the other ancients and honorables who used to make things "go?" Has the weight of years o'ercome them, or has there been so much goody-goody-you-pat-me-and-I-pat-you, that they have retired in disgust? To be sure, there are in evidence one or two cantankerous chaps at whom 'tisn't safe to point your finger unless you crave a shower of billingsgate; but that kind should be forced into retirement.

All this was suggested by a letter from a New Englander who was bewailing the deadness of our literature. He has a handy way of using the literary "shillalah" himself, so I wrote to him to pitch in and I would applaud at the indicated spots.

This heat beats that of the Gila desert.

> "All ask for ice; but everywhere
> Saltpetre is to sell."

Yours as ever,
JOHN HARDSCRABBLE.

* * *

What goes in bee-keeping goes in THE BEE-KEEPER. What THE BEE-KEEPER says goes in bee-keeping—generally.

THE BLIND BEE-KEEPER.

BY BESSIE L. PUTNAM.

FRANCIS HUBER was born in Geneva, July 2, 1750. The son of a prosperous family celebrated for their knowledge of science and art, he early manifested an aptitude for natural history, which developed almost into a passion; and so assiduously did he devote himself to its pursuit that his health was endangered. At the age of fifteen the reflection of the glary snow rendered him permanently blind.

This misfortune, bitterly deplored by the young naturalist, served not for a moment to deflect him from his purpose; in fact, the barrier seemed rather to increase his efforts than to impede his progress; and the other senses, sharpened by added duties and responsibilities, brought to light, amid physical darkness, many of the fundamental principles of apiculture. In later years he was ably assisted by his wife, niece and faithful servant, Burnens. Of the patience, fidelity and skill of the latter, a single instance may be cited. It was at one time necessary, in a certain experiment to examine, separately, all the bees in two hives. His master says: "Burnens spent eleven days in performing this work, and during the whole time he scarcely allowed himself any relaxation, but what the relief of his eyes required."

Huber experimented much on the habits of bees; the peculiar functions of the various organs being through these observations for the first time made apparent. The antennæ, formerly regarded merely as organs of touch, he maintained were also used in communication with their fellows. The peculiar behavior of the queen-bee, when deprived of both antennæ was fully described; and extended observations with both workers and drones confirmed his opinion—now fully corroborated by scientists—that a bee deprived of its antennæ is as helpless mentally as a pigeon bereft of its cerebrum.

Absurd as it now seems, a learned (?) treatise on bees published in 1720 bears the startling statement that one of the chief missions of the drone is to play the part of a setting hen. This speaks not only of his industry in the work for which nature especially designed him, but of his "great usefulness in sitting upon and hatching the Eggs and by his great heat doth keep warm the Brood when hatch'd, thereby giving the working Bees the more Liberties to follow their Labours abroad, whilst they supply their place at home, by taking care of the Young; so that the Male Bee is not only of great use, but of absolute necessity, not only to the being, but the well-being of the Colony of Bees."

The above extract shows not only the practical necessity of systematic study among the colonies, but the vast amount of superstition and ignorance which abounded at every step. And the skill with which the blind Huber sifted out the truth speaks wonders both of his ability and assiduity. He demonstrated the special functions and interdependence of the queen, worker and drone, besides picking up a host of facts, some of which are of inestimable value to the practical bee-keeper. Very interesting is his account of the antagonism of a young queen against a possible rival; and the zeal with which she hunts out and destroys all queen-cells, is but one remarkable phase in a remarkable life.

HIS GREATEST MONUMENT.

His New Observations on Bees was first published in 1796, and was eventually translated into nearly every European tongue. Aside from the important nature of its contents, the remarkable circumstances under which it was written gave to it a special prominence and won for its author immediate recognition by the French Academy of Sciences and other eminent scientific bodies. Huber never derived any material benefit from his scientific investigations. They were made solely for love's sake; and in this light they repaid many fold. To exchange a life of *ennui* and uselessness for the bliss which only a naturalist can enjoy: is this not sufficient reward? But to Huber is accorded much more. Though rivals attempted to calumniate him, strove to render his infirmity a proof of inaccuracy, his new discoveries, as well as his corroboration of principles, proposed but not fully established, are now recognized as correct in all important details. No other bee-lover ever worked under such seemingly unsurmountable difficulties; probably no other ever accomplished so much: and with the cordiality peculiar to the fraternity, bee-keepers of all nations are proud to confer upon Francis Huber the well-deserved title, "Prince of Apiarists."

Harmonsburg, Pa.

* * *

The article, "Roadside Weeds," page 129, of THE BEE-KEEPER for July, was contributed by Bessie L. Putnam, the name having been unintentionally omitted.

* * *

ROBBERS AND THIEVES.

Queen-rearing Pointers, and a Pertinent Paragraph on the Subject of Selection.

BY W. W. M'NEAL.

We read much of late in the pages of the bee journals about honey-bees robbing the sweets of another colony, but very little is written of the *thieving bees*.

To rob means, I believe, the taking of something by means of superior force and with violence; to thieve is simply stealing, and stealing is the abominable habit of trying to gain by stealth. The apiarist whose bees are given to robbing is not deserving of much glory, for this is the fruit of his own carelessness, while the other may not be directly so. Bees will never rob when conditions are normal with all colonies in the apiary: it is only when sweets have been unduly exposed that they make those wild, devastating attacks to take by force. It is as much to be expected of the bees that they will do this as it is that water will run down hill; yet there is no need of fear from robber-bees if precaution is taken to leave no sweets exposed to them when there is a dearth of honey from the flowers.

But thieving on the part of the bees, or some of the bees, is quite distinct in its effects from that of robbing. The apiarist cannot well control this even when he is aware that his bees are engaged in it. Some colonies, by their seeming indifference invite "stranger" bees into the hive to despoil or carry off the honey. These are not necessarily queenless colonies or colonies having virgin queens. A colony in the best condition may, at certain times, have a portion of its honey spirited away. Thieving bees ply their trade best when honey is plentiful, and those colonies that are the best gatherers of honey suffer the most; for when flushed with honey, the regular inmates of the hive pay but little attention to a stranger. When this state of things is extended to the gorging of the honey-sac, the bee becomes exceedingly lethargic, and for the time being will offer no effectual resistance. I cannot now give any solution of the problem for preventing this pillaging among the bees of an apiary. I would not have the conditions removed that favor it—a good flow of honey. Contracting the entrance to the hive will never do, for the bees at that time must have air in abundance. Sprinkling the bees with some highly scented mixture I have never found to be worth the trouble; and I might add, incidentally, that the scent of a stranger bee has but little to do with barring her from companionship with any colony if she comes to them full-handed, deporting herself as becomes an honest bee.

The only effectual remedy for a case of *robbing* by bees is in the prompt removal of all honey accessible to them. This is imperative if order is to be restored among the colonies in the apiary and with every living thing near the apiary. Should the colony or colonies being robbed still offer resistance, contract the entrance to the hive, but don't close the hive. Go to the colonies making the attack and close their respective hives for a few hours. This procedure will have the desired effect; thenceforward don't be guilty of provoking your bees to rob by leaving sweets where they can get at them.

A hive full of honey with a disproportionately large entrance to the bees that guard it differs only in degree with the act of putting honey outside the hive; and as soon as there is a scarcity of honey from natural sources, strong colonies will ferret it out, when trouble is sure then to follow.

But what I wish to speak of advisedly is that since the attention of the queen-bee fancier is being directed to those colonies that store the greatest number of pounds of honey, I would say, look well to this pillaging feature in the disposition of the bee, lest we play the part of the man in the fable who killed the goose that laid the golden egg.

THE DOOLITTLE QUEEN-CELL CUPS.

We of the bee-keeping fraternity who have not, should give Mr. Doolittle a great big vote of thanks for his method of queen-rearing. But my observations along this line teach me that to get a really good queen-bee, the first larva transferred to the cell-cup should be exchanged in about twenty-four hours for another; for it does not stand to reason that the early treatment of the first larva used could possibly admit of a perfect development. In a state of nature it is no uncommon thing for a queen-cell cup containing an egg to be provisioned with a visible drop of liquid food; I say I have witnessed this time and again, and no doubt many others have seen the same. Now, when a larva is transferred to the cup it does not matter how much royal food is given at the time, the bees always remove this. And upon investigating in a few hours, the cups are not only empty but they appear to be perfectly dry.

We are told that all worker-larvæ would develop into queen-bees, were they fed bountifully till the cell was capped by the bees. So, then, I think, it will be safe to say that during the first ten hours of the larva's existence in the prepared cell-cup, it does not develop toward or as a queen should, but as a worker-bee. Taking for granted that no larvæ are used which are over thirty-six hours old for queens, it becomes apparent that, from the early treatment by the bees, the larvæ is made to be much older before it begins to develop toward a queen. This treatment of the queen-to-be is worse than that accorded the ordinary worker-larvæ by the mature bees ; it takes the form of a blight from which the queen can never recover. I always remove from the cells the first larvæ given as soon as they begin to float on the food given them by the bees, and if these are lifted therefrom very carefully, putting as small larvæ as possible in the identical spot the larger one was taken from, the bees will not remove the food this time, but allow the larvæ to develop uninterruptedly as a queen-larva should. Of course, this requires some extra work; but the young queens are enough better to pay for the trouble.

Wheelersburg, O.; April 8, 1901.

* * *

Who shall decide when doctors disagree,
And soundest casuists doubt, like you and
me? —Pope.

BEE-KEEPING AS A SIDE ISSUE,

Or a Back-yard Industry—A Lesson for Beginners.

BY F. G. HERMAN.

NEARLY every one who has even a small open space, has felt at one time or other a longing for the pleasant occupation of tending bees ; but most people are frightened away from the undertaking by the difficulties which seem to present themselves. In the first place they are puzzled to know how to make a proper beginning, and what the requirements really are; for it goes without saying that no person wishes to invest very much capital in an uncertainty. A little looking into the question will usually disclose the fact that some one within a radius of five or six miles of you is a bee-keeper of some degree. If this is the case, it is well to buy your bees close at home, even if they are common bees, and in a box hive, for transporting bees is not only expensive but also risky. as a great deal depends on proper packing and shipping; besides the novice can usually obtain considerable information while purchasing the bees and striking a bargain.

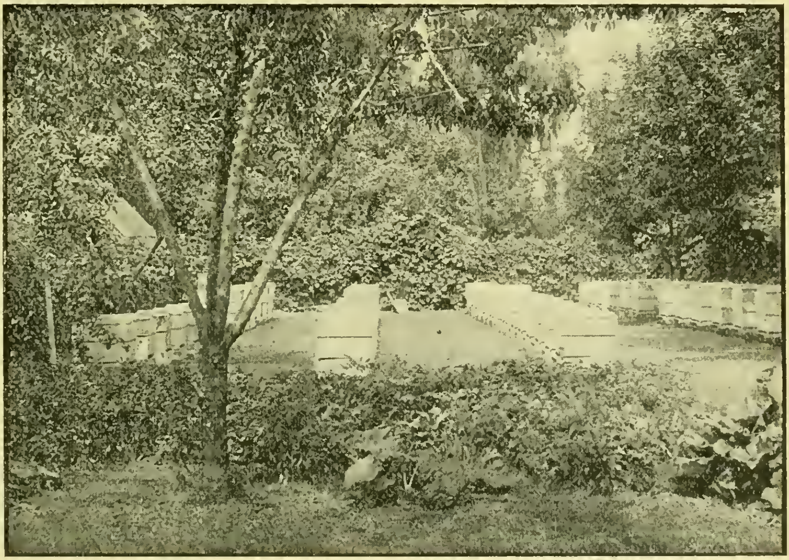
Of course, it is best to begin with only one colony, which, in the Spring of the year, consists of one queen, a few hundred drones and from twenty to fifty thousand workers. This will keep you fully occupied at first, and furnish you with experience which would be costly if obtained on a larger scale. Your colony of common bees in a box hive should not cost you more than from three to five dollars. Afterwards you can transfer them into a movable frame hive and introduce an Italian queen. As the queen is the mother of all the bees in the hive, you will soon have a race of thoroughbreds.

The writer can well remember the time when he obtained his first colony of bees. It was in a box hive and was pulled home on a hand sled, and cost the small sum of three and a half dollars. After purchasing a smoker and veil, an empty hive for the expected swarm and a few other trifles, he set out to harvest a crop of honey. At the close of the season, when summing up, he was surprised to learn that his crop of honey had cost him three dollars a pound. It is needless to say that he was glad that the crop was not any larger at that price, for the expected swarm, although being hived twice, had decamped for parts unknown.

It has been my experience and that of bee-keepers generally that there are fewer risks and larger profits in comparison to the amount of capital invested in bee-keeping than in any other business. Of course, emergencies do arise, but if they are met by ordinary foresight and common sense, they are not likely to result disastrously.

For detailed instructions such as it is beyond the scope of this article to give, there are numerous bee-books to help the novice over the rough places in this delightful branch of agriculture. Rev. L. L. Langstroth, to whom great honor is due, is the father of American bee-keeping; indeed, it was through him that the pursuit has been developed from a game of chance into the great industry that it is to-day; for it was his invention of the movable-frame hive that has changed the occupation of the apiarist from one of pleasure but uncertain profits into a well-paying business.

The illustration herewith shows a growth of six years' duration, or, in other words, an old box-hive transformed into a cozy little apiary of sixty colonies. The crop of honey has multiplied from two pounds into two thousand. Who can foretell the possibilities of the busy little bees?



APIARY OF F. G. HERMAN, ENGLEWOOD, N. J.

And now as to profits. As I am a mere man, and bee-culture is still only a side-issue with me, possibly you may not consider my own testimony valuable, though my bees bring in a tidy, easily earned, and ever-increasing addition to my regular income. It is a conservative estimate of the bee-keepers generally, however, that each hive should bring in at least five dollars a year, and as each hive also throws off a swarm annually, it is easy to see how a little capital invested in bees will grow and multiply, besides yielding a very fair per cent. of profit.

In locating an apiary and arranging the hives, much taste can be displayed, but a few general principles should always be observed. It is an advantage to have the hives facing eastward or southward in order to have the morning sun shine in at the entrances of the hives, which induces the bees to fly forth early in quest of the nectar which collects in the flowers during the night. When the hives are in this position, they will also be protected from the north and west winds. A hedge of evergreens or honeysuckle, as shown in the picture, will be a further protection and make a splendid enclosure. A few shade-trees in the apiary are an advantage and invariably attract the swarms which may issue from the hives at swarming time.

Englewood, N. J.

Cupid and the Bee.

Cupid once upon a bed
Of roses laid his weary head;
Luckless urchin, not to see
Within the leaves a slumbering bee;
The bee awaked—with anger wild
The bee awaked, and stung the child.
Loud and piteous are his cries;
To Venus quick he runs, he flies;
"Oh, Mother!—I am wounded through—
I die wiih pain—in sooth I do!
Stung by some litlle angry thing,
Some serpent on a tiny wing—
A bee it was—for once, I know,
I heard a rustic call it so."
Thus he spoke, and she the while
Heard him with a soothing smile,
Then said, "My infant, if so much
Thou feel the little wild bee's touch,
How must the heart, ah, Cupid! be,
The hapless heart that's stung by thee!"

—Thomas Moore.

* * *

The big convention will surely be held as advertised, in Buffalo, September 10, 11 and 12.

FEEDING BACK

To Secure Comb Honey—One of Mr. Demaree's Experiments.

BX ADRIAN GETAZ.

In connection with the subject of wax secretion, as noted in the Switzerland items this month, I beg to relate here one of the experiments made by Mr. Demaree, of Kentucky, on feeding back.

After the colony experimented on had fairly started work in the super, he took the super off and put in place one filled with sections and full sheets of foundation, and resumed feeding. He had to feed forty-one pounds of extracted honey to produce twenty-four pounds (net weight) of comb-honey. A second super was then placed and it took thirty pounds of feed to fill the twenty-four sections. The third super gave exactly the same result. Taking the two last supers as a basis, there was a loss of honey of six pounds out of thirty. These six pounds were employed by the bees (1) to sustain their life; (2) to raise brood, and (3) to produce the wax necessary to build the sections of comb.

As it was after the main flow of honey and before the fall flow, very little honey could have come from the field, the less so because fed bees do not gather as actively as others. But even supposing that enough came from the field to sustain the life of the bees and to feed the brood (which is not likely to have been the case) we would then have a maximum consumption of only six pounds of honey to complete the combs of twenty-four pounds of section-honey.

There were in each super thirty sections of twelve ounces of honey each. Assuming the weight of wax of each section to be one ounce, six pounds of honey produced thirty ounces of wax or 3 1-5 pounds of honey to one pound of wax. This is probably too high, for it is not probable that there was enough honey brought in from the field for brood-rearing and life-sustaining purposes. It must be remembered here that a colony bountifully fed will raise a considerable amount of brood and slack or even quit entirely gathering from the field.

Knoxville, Tenn.

* * *

So do the winds and thunder cleanse the air,
So working bees settle and purge the wine;
So lopped and pruned trees do flourish fair;
So doth the fire the drossy gold refine.

—Spencer's Fairy Queen.

REMOVING HONEY FROM THE HIVES.

BY L. E. KERR.

I SUPPOSE every one has his own way of doing this work. Locality also has a great deal to do with it. In localities where the flow is of short duration, and the product is shipped, not much fitting and crating is done till September or October. Here, however, our flow is best in November. And also I find a ready market for all of my product right at home.

I never use a bee-escape in removing honey; they do their work all right, but for some reason, I know not what, I have a distaste for them. I use them after the honey is off the hives, but not before. One ought to have a good smoker, well fired up, before undertaking to remove honey from the hives. Among the almost endless variety of smokers I take nothing but a brass Bingham, and the larger the better. No one could run fast enough to give me one of those fifty-cent affairs.

Before removing any honey, number every hive (unless it has been previously done) and the supers to correspond, so that a complete memorandum may be taken as each super is emptied and inspected. This is to ascertain the quality of workmanship displayed by each colony, which is quite necessary in order that the best colonies may be selected for breeders.

Pry up the super cover and blow in a few whiffs of smoke. Cover it again with a wet blanket, which should be considerably larger than the top of the hive. Lift up one side of the blanket, and after blowing a good lot of smoke under it, begin flopping it up and down, thus driving the smoke into every passage. After doing this several times the bees will be found to have beaten a hasty retreat. Now pry the super loose and remove it from the hive, giving it several vigorous shakes, thus shaking out any bees that may be remaining. Generally the super will be pretty well cleared of bees by now. It is best, however, to stack them up in a corner of the apiary as high as you can reach, standing on the ground. There should be a bee-escape at the top and bottom. If left to stand thus for an hour or so, every last bee will leave.

It is amazing to know that even now there are people who believe that bees can be handled best when it is cool. I have also known people to go so far as to handle them by night. I once knew an old gentleman to get up so early to remove some honey from a hive that he had every good reason to expect the bees to be not yet awake, and too sleepy, of course (?) to sting.

One has to work quite fast in order to drive as many bees as possible out of the supers. When bees have to leave their honey they will always try to carry a full load with them; and they will not hesitate to tear off the beautiful white capping and spoil the appearance of the honey, if allowed to linger in the super.

It has been quite dry here, but I think our crop will come up to the average.

Hurricane, Ark.

* * *

The losses and crosses
Be lessons right severe,
There's wit there, ye'll get there,
Ye'll find nae other where. —Burns.

* * *

"An honest confession is good for the soul," and the Hutchinson strain of three-band Italian bees for gentleness and business; and hence I offer untested queens from this superior stock at 75 cts. each, six for $4.00, or $7.50 per dozen, and Goldens bred from select stock at the same price. Money order office Warrenton, N. C. W. H. PRIDGEN,
7-2t Creek, Warren Co., N. C.

* * *

Bee-keepers are Careless.

Albany, July 30.—Commissioner of Agriculture Wieting reports that up to July 20 the four agents inspecting bees under the charge of the Department of Agriculture have examined 416 apiaries, embracing 13,393 colonies. Of this number 229 apiaries were found more or less infected with black or foul brood, and 1,834 colonies were condemned to destruction, or to be treated with such remedies as have been found effective. Commissioner Wieting makes the following statement concerning the work: "Were it not for the carelessness and negligence on the part of so many bee-keepers, the Department would feel that it could soon suppress the prevailing contagious diseases among bees in this State."

The Bee-keeping World.

JAMAICA.

"Jamaica is the biggest little country I have ever seen!" was the exclamation of a tourist after a trip about the island. This is the general feeling and one that grows on one as the island is studied, and after five years' residence I can well echo the exclamation of my tourist friend. Jamaica is an island one hundred miles South of the East end of Cuba, and belongs to Great Britain. It is 144 miles in length and forty miles across at the widest point. It is quite mountainous, the greatest elevation being 7460 feet. This gives a great range of climate—from tropical at the coast, to temperate at elevations of five thousand feet and upwards, where white clover and dandelions, wild roses and strawberries play hide-and-seek among the stately tree ferns and lovely orchids by the wayside. The rankest growth of white clover I ever saw was on the very top of the highest peak in the island. For all that we are so far South, the climate over the greater part of the island is delightful the year around, and never has the extremes we used to experience in our thirteen years of life in Florida. The Northern and Eastern portions of the island are hilly almost down to the coast, but on the Southern side are wide plains that extend for many miles. I give these details of topography and climate as they have a very direct bearing on what may be said further on, and for the same reason I will give a few more details of interest regarding our island home, for a good many people have a hazy notion that Jamaica is a heathenish and uncivilized place; which is far from the truth. We have a railroad running the length of the island, and from North to South at the widest point. We have most excellent macadamized roads throughout the island—over 2500 miles of main roads besides very fair parochial roads, so that one can get about on wheel or in buggy with great ease. The people are orderly and when properly managed are good laborers. The large majority of the people are black and colored, as the mixed races are called here, but there is a fair sprinkling of white people. We find many of the colored people very highly educated and find some of our best friends in this class of the people, for there is very little race prejudice here. The government is administered by officials sent out from England, but many of the minor offices are filled by colored or black men who have successfully passed the civil service examinations.

With this preamble I will come to things apicultural. In nothing is Jamaica "the biggest little country" more than in its yields of honey. I will not specify as to largest yields, but I consider that it can be laid down as a safe proposition that there are large areas in Jamaica that are unequalled the world over for yield of first-class white honey. Now I don't want my readers to think this is an unexplored apicultural Klondike, for nearly all the valuable claims have already been staked out by private individuals and syndicates, and our resources are in a fair way to be fully worked. In future letters I will endeavor to give some account of methods followed here, and of the varied flora from which our honey is derived.

"ENTERPRISE."

CUBA.

Doctor G. Garcia Viete, the great Cuban bee-keeper who has become distinguished not only by his apiarian achievements, but by reason of the many responsible positions held in medical, political and military circles, has recently been elected mayor of the picturesque city of Cienfuegos; thus adding another score to the long list of honors. The extensive bee business which Doctor Viete has developed on the South coast has been re-organized and is to be known in the future as G. G. Viete & Co.

AUSTRALIA.

The *Bee Bulletin* says "Pure cappings gives the yellowest wax." It's not so in America.

◆

An effort is being made to secure legislation favorable to Australian honey exported to Great Britain; *i. e.*, an adjustment of duties favoring honey from British colonies, as against that from California, South America, etc.

"Gray Box" is a tree which yields honey in some parts of Australia; and it has recently been found that this honey is responsible for many winter losses heretofore unaccounted for.

◆

The *Bee Bulletin* learns from an exchange, *Quirindi Gazette*, that honey will turn to wax if left untouched for a long time. This is timely information, and the Australians, who have such a hard time in disposing of their big honey crops, might find in it the solution of the market problem. Wax is always ready sale.

◆

The use of galvanized tanks and extractors is condemned by several contributers to *Australasian Bee-Keeper*. This metal is thought to be injurious to the honey which comes in contact with it.

◆

It is said that the wax moth is so bad in Queensland as to have nearly exterminated the bees.

◆

The first bees in the Island Continent were introduced in 1822 by Capt. Wallis, of the ship *Isabella*. They were of the black or German variety. The first Italians introduced with success, according to the "Australian Bee Manuel," were those taken to Queensland by Mr. Fullwood, from Liverpool, in 1880.

◆

Editor W. S. Pender, of the *Australasian Bee-Keeper*, says that there are days in his country when the air is so dry as to render it impossible to transfer larvæ by the royal jelly plan. Says it will dry hard in two minutes on such days; so that the process is attempted only when atmospheric conditions are favorable. The same practical writer, in regard to introducing queens, lays great stress upon the importance of having the queen in a very amiable condition before introducing her. He sometimes finds it necessary to starve her until she will beg for food, and "thus prepare her to accept of the bees."

◆

Referring to a discussion between A. C. Miller and Editor Root some time ago, Mr. Pender says that he has had bees too busy gathering honey to start cells when made queenless.

◆

A writer in *Austral Culturist* says he can produce foul brood to order at a few days' notice by any of the following methods: (1) Strengthening weak colonies by adding brood. (2) Artificially dividing, slovenly done. (3) Giving a new swarm a full frame of sealed brood. (4) Spreading brood and inserting combs or starters in the centre. "These," says he, "are the main causes, and should not be practiced."

◆

The following from the *Austral Culturist* voices a truth to which the people of this country, as well as those of other lands, will surely awake at no very distant date:

> OUR TIMBER RESOURCES.—That Forest conservation ought to be one of the first questions dealt with by the Commonwealth, there can hardly be a doubt. Young trees should be protected, worked-out saw-milling areas should be re-planted, and there ought to be an act passed right away to prohibit the felling and burning of milling timber for settlement purposes. Millions of feet of valuable timber have been allowed to be burnt in the past. This is worse than waste—it is a national crime. The timber land of this colony is of much more value to the people than any such small farm settlements can be. In fact, it would have paid the colony far better if every small and large settler had been paid a pension by the colony to sit down and do nothing rather than allow such settlers to burn off and destroy the inheritance of the people. What shall we do when our timber is exhausted? Sawmills will eat up our forests, building material will go up 100 per cent.
>
> Timber is going to be of much more importance to the welfare of the people of this colony than many are aware of. The forests of Victoria equally with those of Australia, are beginning to show the effects of man and fire. In the bush country the cry is heard the loudest, because it is only those who earn their living felling timber who know how really difficult it is to get good sawing timber.
>
> American forests are being exhausted at a very rapid rate; whole States have been deforested during the life of many now living. The question of timber, cheap and plentiful, will settle the future of people as of States, and the first thing that people should consider is how best to conserve our remaining forests.
>
> And above all, what do bee-keepers say to this? What are they going to do? Consideration of good timber is their all in all, for nothing can take its place. Honey is one of those by-products of a large forest area which re-acts and helps in fertilization of its blossoms and ensuring a succession of valuable timber. Remember, the only way you can keep up the supply of timber is to plant a tree for every tree you cut down. Remember the fate of Northern Africa, of the one-time lovely vales of Palestine.

FRANCE.

From time to time medical treatments requiring the use of honey are given in the different bee papers. The *Apiculteur* gives one (translated from the German) which undoubtedly caps the climax in that line. A gentleman, afflicted by a chronic diarrhœa, was cured (?) by having bees sting him on the abdomen. Next!

SWITZERLAND.

Several communications have appeared in the *Revue Internationale* concerning the quantity of honey necessary for production of a given quantity of wax, say one pound. Among the figures quoted we find: Milnes, Edwards & Dumas, 30 ℔s; Berlepsch, 10 to 12℔s; Viallon and DeLayens, about 6 ℔s; Hamet, 2 to 3℔s. Mr. L. Maupy, from a theoretical standpoint, thinks 2½ ℔s the lowest limit admissible. The chemical analysis shows that 100 pounds of wax contain, chemically, 81½ ℔s of carbon, 13½ ℔s of hydrogen and 5 ℔s of oxygen. On the other hand the honey averages about—for 100 pounds—20 ℔s of water, 32 ℔s of carbon, 6 ℔s of hydrogen and 42 ℔s of oxygen. The water, though composed of hydrogen and oxygen, is here separated because it is mixed with the other constituents of the honey, and not chemically combined. It follows then that to furnish the 81½ pounds of carbon necessary to 100 pounds of wax, a consumption of 250 pounds of honey will be required, since 100 pounds of honey could furnish only 32 pounds or thereabout. If I am not mistaken, Viallon, De Layens and many others have experimented with bees confined; feeding first just enough to keep them alive, then as much as they would eat; weighing bees, feed and wax in all stages of the experiment. Their object was to find out how much of the food consumed was used merely to sustain the life of the bees, and how much was employed to the actual production of wax. The defect of such methods is that bees in confinement are not in a normal condition and it is very doubtful if the conclusions thus deduced can apply to bees under normal conditions. Mr. Sylviac (*Revue Internationale*) has, during the last three years, experimented on bees under normal conditions and during the honey flow. The descriptions of his experiments were given at the time, but the communication I have before me gives only the final results obtained. When working, a colony of approximately ten thousand bees will eat daily for merely life sustaining purposes about nineteen ounces of nectar. It takes three pounds of nectar to produce one pound of wax. He says "nectar," and I suppose meant such as it is brought from the field. Nothing is said about the brood; I suppose the colonies experimented on were not allowed to raise any brood. More will follow in future issues.

◆

Mr. Jules (*Revue Internationale*) has made an improvement on the spur imbedder used to fasten the foundation to the wired frames. It appears from his contribution that the European bee-keepers heat their imbedders in order to make the wax adhere better to the wire; but the spur, being small, loses its heat rapidly and requires constant re-heating. Mr. Jules attaches the spur to an ordinary soldering iron. The iron keeps the heat a long time, comparatively. One instrument is heated while the bee-keeper uses the other. It seems to me that a spur, or roll, could be made large enough to keep the heat as long as a soldering iron.

ADRIAN GETAZ.

GERMANY.

Germany's bee-keepers are anxious to have a special law enacted against adulteration of honey. The government does not favor the idea because it is claimed that the adulteration can not be proven by chemical analysis.

◆

Schools teaching bee-keeping are not a new thing in Germany and have been held there as well as in Austria for many years. The instruction given includes the manufacture of hives, straw skeps, comb foundation, solar wax extractors, bee escapes etc. The terms are short, lasting but ten days; tuition or admission is free.

◆

A new style of honey extractor is advertised and described in *Leipziger Bienen Zeitung* about as follows: When using our improved extractor the work is simplified and made easy on account of having dispensed with the cumbersome metal can or wooden tub. We need no uncapping can. The comb baskets are hinged at the bottom of the revolving iron frame and may be dropped down like the leaf to a writing desk, when the combs of honey can be laid upon the wire screen of the basket; in this position they are uncapped, then turned over. Now the comb baskets are raised to their proper position ready for extracting. On account of the pleasing form and the elegant finish the extractor may be used as a flower stand when not in use otherwise. Price complete, 36 m.

◆

Gundelach, Berlepsch and Donhoff have proven by their experiments that bees consume ten parts of honey to produce one part wax. The bees were kept confined. Collin declares, during a good honey flow wax costs but little honey. According to *Apiculteur* Sylviac found that under favorable conditions one part honey would produce an equal amount wax. Hamet thought that two or three parts honey would on an average produce one part wax when consumed by the bees.

◆

"Expert Commission of German Bee-keepers' Societies" is the latest. The object of this new organization is to fight adulteration of honey.

◆

A good point about introducing queens is made in the *Phalz. Bztg.* as follows: Manage to have the queen liberated from the cage by the bees during the night. The bees, not expecting strange bees to enter their hive at night will not molest the introduced queen. A queen may be installed with perfect safety within thirty hours.

◆

Several methods are given in *Central Blatt* to easily secure swarming bees as they are issuing from their hive. A sort of bag made of a loose fabric is attached to the hive just as the bees begin pouring out. Of course, all bees have to stay inside of the bag. If it has been attached before the queen left the hive she will be in safe keeping and what few bees may have left the hive before the bag or swarm catcher had been put in place will cluster on the outside of it; when the cluster has become quiet the hiving may be done by dumping the bees out in front of their new abode.

Another method is by the use of a mirror, as follows: Take a position that the rays of the sun strike the glass, turn the mirror in such a way that the reflected rays strike into the midst of the swarming bees and move it back and forth a little. The writer claims that he has been able to induce all swarms to cluster low, many of them on the ground, making hiving a very easy task. A self-hiver is also spoken of as a means to secure the swarms with little labor.

◆

According to Fleischmann in *Leipziger Bienen-Zeitung*, the Italian bee is losing ground among the German bee-keepers and he claims that Dzierzon is about the only one who champions the yellow race. In Belgium it is said the bee-keepers are of the same turn of mind; in France they are about equally divided. America alone stands solid for the Italian bee (Not quite true. F. G.).

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It is a well-known fact that large apiaries exist in Germany where frame hives are not used. Many of these apiaries are a reliable source of income as the *stamphhonig* (mashed-down honey) produced and the surplus bees find a ready sale. Nearly all German bee periodicals contain a department for the *korb-imper*—one who keeps his bees in log-gums and straw skeps.

◆

On the average the German bee-keeper owns but a few stands of bees, consequently he is not so well-equipped as the majority of American bee-keepers. A great many are not in possession of a smoker but make the cigar or pipe answer the purpose instead. A wad of rags set on fire is also used and is recommended in the papers.

◆

Glœden thinks bees may be safely wintered without pollen. He came to this conclusion from the following experiment: A forced swarm was hived in an empty hive late in the Fall. So late indeed that no pollen was stored. Said bees were fed on sugar syrup abundantly, drew out the foundation into combs, capped over the syrup and fixed up as best they could for winter. A careful examination before winter showed that not a cell of pollen was present in the hive. The colony wintered well and came out as strong as any. It is not stated whether a pollen substitute was fed in the spring or not.

F. GREINER.

CHINA.

According to a report in *Central Blatt* the Chinese honey bees are exceptionally good-natured and even-tempered. In appearance they are distinct from our races inasmuch as head and abdomen are of a bluish cast. As timber is scarce lumber is not used for hives, but baskets take the place and are coated inside with clay. On account of lack of pasture lands and forests honey yields are said to be meagre and honey high priced. In some localities buckwheat is grown and furnishes some surplus.

◆

'Tis in books the chief
Of all perfections, to be plain and brief.
—Butler.

◆

That offer which the publishers have made, to send THE BEE-KEEPER six months to new subscribers, struck a responsive chord. The offer still holds good.

Buckwheat and Memories.

The world seemed bright, for the day was fair,
And the songs of birds were in the air.
There came from the pasture a dreamy "loo,"
And a "caw" from the woods where the black crow flew.
The soft wind rustled the corn so tall,
And the chipmunk frisked on the old stone wall;
And, looking so fair in the bright sunlight.
Was the buckwheat field with its bloom of white.

Out in the field where the buckwheat was blooming,
A troop of glad children played, long years ago.
Their hearts, as they played in the sunshine and flowers,
Were light with the joys only childhood can know.
And one—'twas the fairest of all that gay party—
Was decked like a queen in a crown white as snow.

Over the field with its wealth of bloom
That fills the air with a sweet perfume,
Homeward bound with its burden, we see
The heavily laden honey-bee.
Its load of nectar the bee will bear
To its hive, at the back of the garden, where
Sweets of the rarest kind are made
For the country home and the city trade.

* * * * * * *

At home, in the city, a sick woman is lying,
Sad trailed is her face, but her sighs are controlled.
The husband brings home a square of dark sweetness,
And her face brightens up as the wrappings unfold;
And her thoughts go back years to that scene in the country,
Her playmates, the crown and the joy-spots of old.

—Verner R. Wooster.

Lysander, N.Y.; July 8, 1901.

◆

None but an author knows an author's cares,
Or Fancy's fondness for the child she bears.

—Cowper.

◆

We are still anxious to receive good articles for publication from our readers. Send them along. We have never yet had too much good material.

OUR CORRESPONDENTS

Plainville, Conn.; July 13, 1901.

Editor American Bee-keeper: Mr. S. Chase, of Titusville, Pa., asks for information about the building of hives that will keep out robbers and thieves. It seems to me that the keeping out of robbers depends more on one's system of management than the kind of hive used. If one keeps weak and queenless colonies or those whose queens are diseased in early spring, or at other times when honey is scarce, he must expect to have many of them destroyed by robbers and his strong colonies injured. I find the best safeguards against robbing to be the keeping of nothing but strong colonies during a scarcity of honey; the making of all increase during the honey-flow, and being very careful not to let the bees get a taste of honey at other times, by keeping the hives open too long, or otherwise. I don't know how to keep thieves away from our hives except by putting them in a house-apiary; but to use large hives and have strong colonies will cause the thief to pass over ours and go elsewhere.

If the hives can have loose bottom-boards and be otherwise inclined to fall to pieces they will not often be tampered with. I use Quimby-Dadant hives and Quimby-Hetherington standing frame hives. Both of these hives, when filled with bees, brood and honey are so heavy that no man can carry them far. I keep half or two-thirds of the bees in this locality, but my loss from thieves has been only one colony during the last five years and that is less than one-sixth of those stolen in the neighborhood. Yours respectfully,

D. B. Norton.

Stroudsburg. Pa., July 15, 1901.

Mr. H. E. Hill: I notice in the July Bee-keeper that a subscriber wishes to know how to prevent robbing. My grandfather used to prevent robbing by catching the robbers in a box, holding them a day or so, after which he turned them loose, and they would never return. The box had holes bored here and there into which were fitted ⅜ inch tubes even with the outside of the box and extending inside five or six inches. The bees can get in but are puzzled to get out. The box should be set on top of the hive; and if the colony is small the entrance should be contracted.

Yours respectfully, W. D. Walton.

Walker. Mo.; July 6, 1901.

American Bee-keeper: In May number Mr. Haight tells us how to make a scraper out of the head of an old scythe. From his description it seems to me 'twould be kind of an awkward tool.

Now let me tell the brethren about my scraper: Take an old, flat file to your blacksmith; cut off the shank for handle; draw out the end as thin and wide as you can—say two inches. Make perfectly straight on edge, then make a square turn of about 1½ inches, to stand in the shape of a hoe. Sharpen the other end to use for prying up crates and for other purposes. Temper and file sharp, and you have the best bee-tool on earth. You can pry up, scrape tops, sides, corners or anywhere else, and also have a tool that can be used for many other purposes. I have three so that I can find one most any time or place. If you are on good terms with your blacksmith, they will cost you about ten cents. Yours, GEO. H. MOBLEY.

Hurricane, Ark.; June 20, 1901.

Dear Editor AMERICAN BEE-KEEPER: I fail to see the connection when you speak of any theory of mine in the June number as regards the superior finish of honey during a slow flow. It is nature's handiwork and no theory of mine that causes a slow flow here. Still I have seen honey from all over the world and never remember seeing any that could beat what I have been removing to-day. I can hardly assume to say, however, that any theory on my part made the honey whiter. Fact is I have never thought much about it; but since you have spoken of it, I have about made up my mind that the difference is all in the locality. Indeed, bees work much different here than anywhere else I have ever kept them. Fraternally,

L. E. KERR.

* * *

'Tis pleasant, sure, to see one's name in print,
A book's a book, altho' there's nothing in't.

—Byron.

THE AMERICAN BEE-KEEPER

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H. E. HILL, - - - - - EDITOR.

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☞ Matters relating in any way to business should invariably be addressed to

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☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

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☞ Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

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Dr. C. C. Miller, the world-renowned authority on apiculture, of Merango, Ill., was seventy years of age on June 10, 1901. The *American Bee Journal* paid the venerable gentleman a pretty tribute on the occasion of his anniversary.

The Colorado Honey Producers' Association, a co-operative institution incorporated under the laws of the State whose name it bears, and having an authorized capital of $10,000, is having a most satisfactory effect upon the development of honey-producing interests. The Association's work forms the chief topic in the June number of the *Rocky Mountain Bee Journal*, and it is exhaustively discussed.

"Special Bulletin No. 14," issued in June, 1901, by the Michigan Experiment Station, deals in a most practical way with the subject of foul-brood. The language is such that any novice will readily understand the whole subject, which treats of the origin and cure of this deadly malady. The authors have drawn liberally upon such recognized authorities as Wm. McEvoy, N. E. France and Prof. F. C. Harrison in the compilation of this excellent treatise. It is by Messrs. C. D. Smith and J. M Rankin, the latter gentleman being the State Inspector of Apiaries, to whom we are indebted for a copy. Michigan's recently enacted law in regard to foul-brood is also given. A copy will be sent free upon request.

To those whose selection of breeding stock is governed by the honey returns of the colony, Mr. W. W. McNeal offers an important suggestion in this number. It is a well-known fact that robbing is a marked characteristic in certain strains of bees. We have found it to prevail more especially in the golden Italians; though the same disposition is frequently observed in other varieties of bees. Is it not quite probable, then, that in cases where a certain colony is reported to have been storing surplus at a time when feeding was necessary to prevent starvation in the cases of other colonies, that the exceptional record might find its solution in a robbing propensity rather than in long tongues? As a matter of caution, we would suggest that in such a case the "surplus" be compared with a sample of the goods being fed. It is not improbable that a striking similarity would be shown. Not many bee-keepers would care to pay fancy prices for stock which habitually secured its surplus from the hives being fed.

From the viewpoint of the Southern bee-keeper, one of the most interesting articles that has appeared in months is contributed to a recent number of *Gleanings* by W. W. Somerford, of Cuba. Like all others, we believe, who have kept bees in the South for a long time, Mr. Somerford has found that there is but one kind of hive cover that meets the requirements, and that is the cleated flat lid. His regard for the flimsy, ventilated contrivances which are found to-day upon the market, and which may be satisfactory for Northern countries, is akin to that of Mr. Kerr, for the Clark cold-blast smoker, as expressed in this number. He has solved the bottom-board problem by having them made at a brick-yard—one solid flat-pressed brick, 16 x 21 inches. Thus his mind is relieved from further anxiety in regard to bottom-boards. These are set flat on the ground, and the hive has a foundation for life, which will neither warp nor decay. Mr. Somerford further shows his practical experience in handling bees by calling attention to the error so commonly practiced, of putting the end-spacing staples at the top instead of at the bottom of brood-frames. He says: "Just try them, and you will wonder why any one ever put them at the top corners of frames." We have advocated this placing of the staples in the ends of the bottom-bar for sixteen years; but evidently, its advantages have not been appreciated. The chief object of the end-staples is entirely defeated by placing it at the upper part of the frame. The ordinary window-blind staples, to be had of almost any hardware dealer, are just the thing for this purpose; and any one can easily procure and drive them in the ends of the frames, leaving them extended from the wood about 7-16ths of an inch. Cut a saw-kerf in a 7-16ths strip of wood; after starting the staple, slip the strip over the staple, allowing it to come up through the saw-kerf, and tap it down even with the wood. In this way all staples are quickly driven, and uniformly. You can then handle and shake bees without killing them or endangering the life of the queen.

$200 QUEENS ARE NO MORE.

The following is from *Gleanings* for July 1.

"In the AMERICAN BEE-KEEPER, which has reached me on the fly, I see that Editor Hill has replied to the editorial on page 476 of *Gleanings* regarding the matter of high values on queens. While I differ on many of his points, there is one on which I feel constrained to acquiesce, viz., that if one owner of some really valuable queen places a high value on her, other breeders, perhaps less scrupulous, may put equal or higher values on breeders comparatively mediocre or even poor. As the matter is liable to abuse, we have decided to place no values on breeders which we propose to keep and will not sell. But queens from such choice stock, best we have, we may hold all the way from $10 to $25."

It is a matter of no surprise or displeasure to us to note that Editor Root holds ideas different from our own in regard to many points noted on page 119 of THE BEE-KEEPER for June. It is every man's right to freely exercise his own reasoning faculties; and, surely, no man is responsible for the extent of the weight which certain evidence may have in convincing him upon any matter, nor for the effect which certain arguments may have in displacing his pre-established convictions. It is gratifying, however, to note that, as a result of our efforts to point out the injustice of the practice of advertising such fabulous valuation in queens, the practice is to be discontinued by the originators. This is not the first instance in which Mr. Root has proven himself willing and ready to acknowledge an error when it has been pointed out to him. It is only through such acts of candor that unquestionable honesty of purpose is revealed and established. With an indirect reference to an instance quite different to the one in question, the *Bee Keepers' Review* recently published this paragraph:

"Own up like a man, if you are beaten in an argument. It's the manly thing to do, and raises you in the esteem of honorable men. When an opponent does this, the victor feels like grasping him by the hand—there comes over him a feeling that 'here is a man who would rather be right than victorious.' "

That paragraph would have been a credit to any of the old philosophers; and it is pleasant to note that the spirit of its teachings is appreciated by some, at least, of those who engage in public discussion of questions relating to our pursuit.

THERE ARE NO QUEEN-BREEDERS.

Speaking of in-breeding, Arthur C. Miller in *American Bee Journal* says: "It is the chief reliance of the skilled breeder for intensifying desirable tendencies." This, however, is but one paragraph out of many pages recently published in apicultural journals which go to show that the world's queen-breeders are, generally, a lot of ignoramuses. In fact, the question has been pointedly asked, "Are there any queen-breeders?" and, by inference, the response, from the labarynthian realm of science and letters, comes quite audibly, "Not that we know of."

The *Bee Keepers' Review* has the nerve to tackle the subject; and, to the end that it shall be radically discussed, has gone out among breeders of other blooded stock for information. Mr. F. B. Simpson, a noted breeder of cattle and horses, of Cuba, N. Y., contributes a long article upon the subject in the June number of the *Review*, all of which is very interesting to the scientific student; but, we believe, very little of it appeals to the ordinary keeper of bees. Mr. Simpson, in substance, says the breeding of other stock is quite dissimilar to the breeding of bees, and endeavors to explain that the frequent references to how and what has been accomplished in his line are not parallel to bee-breeding, and therefore insignificant. Mr. Simpson thinks a college education a pre-requisite to successful queen-breeding. He further says that he does not believe we will ever get any really conclusive knowledge in regard to the effects of in-breeding, as applied to bees, except by *actually breeding the bees;* the more so from the fact that we have nothing in the nature of domesticated animals which forms any real parallel to the bee. Apparently founding his ideas upon Darwin, in addition to his own observations, Mr. Simpson takes occasion to caution queen-breeders against the in-breeding of stock for sale; but only as a matter of experiment until the results have been determined. He emphasizes the point that in-breeding is resorted to as a means of intensifying desirable qualities only in cases where unrelated stock of desirable characteristics is unavailable.

We have not the space, even if it were a subject of general interest to our subscribers, to follow the discussion closely; but from that which has already appeared, we are hopeful that much good may result along these lines. It is quite evident that "all hands" are very ignorant on the subject in so far as it relates to bees; and we will hazard the prediction that the highest standard of excellence is to be secured through careful selection, rather than through intensification by in-and-in breeding.

The time for the subscription contest expired July 1st and resulted as follows, and the prizes await the orders of the winners: First prize—$20.00 worth of supplies—to W. H. Pridgen, Creek, N. C., whose name was on the largest number of cards received. Second prize—$10.00 worth of supplies—to Porter A. M. Feathers, Oak Hill, Fla. Third prize—$5.00 worth of supplies— W. J. Forehand, Fort Deposit, Ala. It is a noticeable fact that the three prizes were won by Southern bee-keepers.

WHITE CLOVER AND SAW PALMETTO.

In the July BEE-KEEPER we noted the fact that the saw palmetto is to the Florida bee-keeper what white clover is to the Northern producer of honey. Commenting thereon, the *American Bee Journal*, a publication, by the way, which hails from a white clover section of the country, says:

"Saw palmetto is an important honey-plant. That same remark about white clover would perhaps elicit a smile of pity, for every one is supposed to know white clover honey."

The smile of pity, dear *Journal*, would be elicited only from those whose conception of the magnitude of our country and the diversity and extent of its flora was limited to the comparatively small area in which it grows so luxuriantly. There is little doubt that if the *Journal's* home were situated in the unreclaimed lands of the Pacific slope, the whole world would be supposed to know all about sage honey. If it were in the Salt River valley or in certain irrigated districts of Colorado, perhaps, the man that did not evince a thorough acquaintance with alfalfa honey would be branded as very green. White clover honey is deservedly popular, indeed; but it is not the "whole thing," by a lot. Very, very many children who have had "mamma" spread saw palmetto honey on their bread, have long since gone down to the grave in locks of gray, without having seen or heard tell of white clover honey. Thousands upon thousands of citizens of the United States to-day, whose hair is white, or who have no hair at all, have never seen white clover honey nor the plant itself. While saw palmetto is a source of nectar supply equally as reliable as white clover, we believe it has to its credit larger yields than have been accorded to this latter most excellent producer. As to the universal knowledge of its readers, it is possible that our esteemed contemporary is over-exacting.

Honey and Beeswax Market.

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

CHICAGO. July 18, 1901. — Choice white comb honey is arriving rather more freely, and brings fifteen cents. There is no accumulation at this writing, as receipts sell within a week after arriving some of them on the same day. Amber grades bring about twelve cents. Extracted dull and slow of sale at anything over five to five and one-half cents. Beeswax steady at thirty cents, with good demand.
R. A. BURNETT & CO.

KANSAS CITY, Mo.; July 20.—Honey is in fair demand at present with light supply. Comb sells at 15c ; extracted 6 @ 7. Beeswax is in good demand at 30c., with light supply. New comb honey is on the market.
HAMBLIN & SAPPINGTON.

NEW YORK, July 22.—Just at present the market is almost entirely cleaned up of all kinds of comb honey. Some few lots of fancy white have been received from the South and sell readily at 14 @ 15 cents per pound. Extracted honey is without demand at present and is selling at from 4½ @ 6 cts. per pound according to grade. Beeswax is in good demand and sells promptly at 28 @ 29c.
FRANCIS H. LEGGETT & CO.

BUFFALO, July 19.—We have but little demand for new fancy honey, and no new supply noticed. Comb honey sells at 15@16c. No extracted. Fancy beeswax sells at 22 @ 28c.; small supply. We advise sending a moderate amount of new honey now.
BATTERSON & CO.

LITERARY NOTES.

THE SATURDAY EVENING POST will, in an early number, begin an unusually good business story, entitled "The End of the Deal." A famous transaction on the Chicago Board of Trade is the basis upon which the author, Mr. Will Payne, has founded this striking romance of the wheat pit. A charming love story runs through the stern and stirring plot.

THE COSMOPOLITAN for August contains an essay on "The Ideal Husband," by Lavinia Hart, who, in the April number presented an essay on "The Ideal Wife," which was at once clever and philosophic, and created a demand for a paper on this subject—on which few people agree—which is certain not only to prove widely interesting but to cause lively discussion. In the same number Mrs. Van Rensselaer Cruger (Julien Gordon) tells the story of the life of the French wife with all its tragic commonplace narrowness.

THE LADIES' HOME JOURNAL will soon publish an illustrated article entitled, "With Seton-Thompson in the Woods." Every reader of Ernest Seton-Thompson's graphic animal stories retains a deep impression of the author's profound mastery of wood-lore. The wonder is how he accumulated such a never-failing fund of it. Some interesting information about how he lives in camp and works "in the open," is given in this article.

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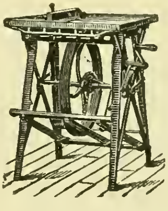

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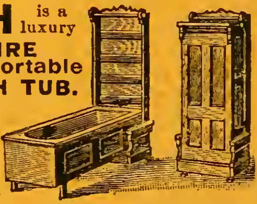

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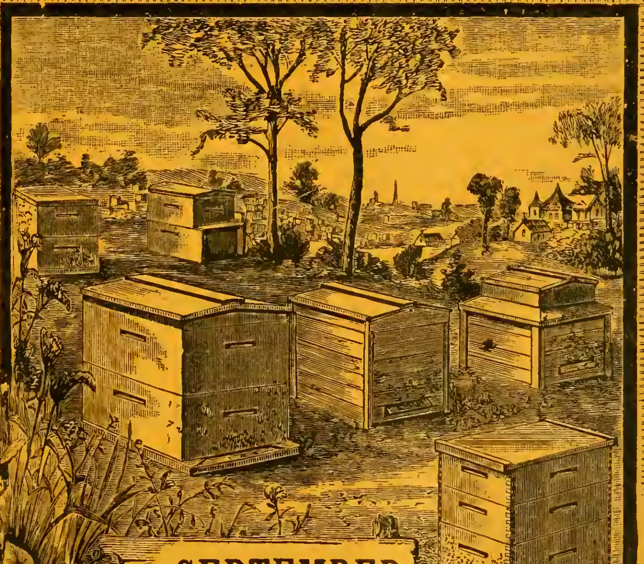
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SEPTEMBER

1901

Vol. XI No. 9

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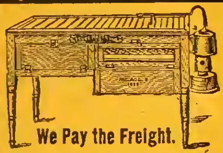
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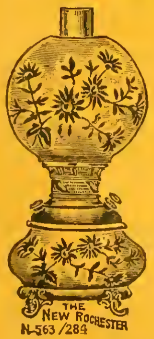

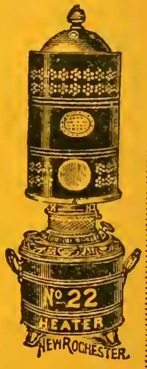

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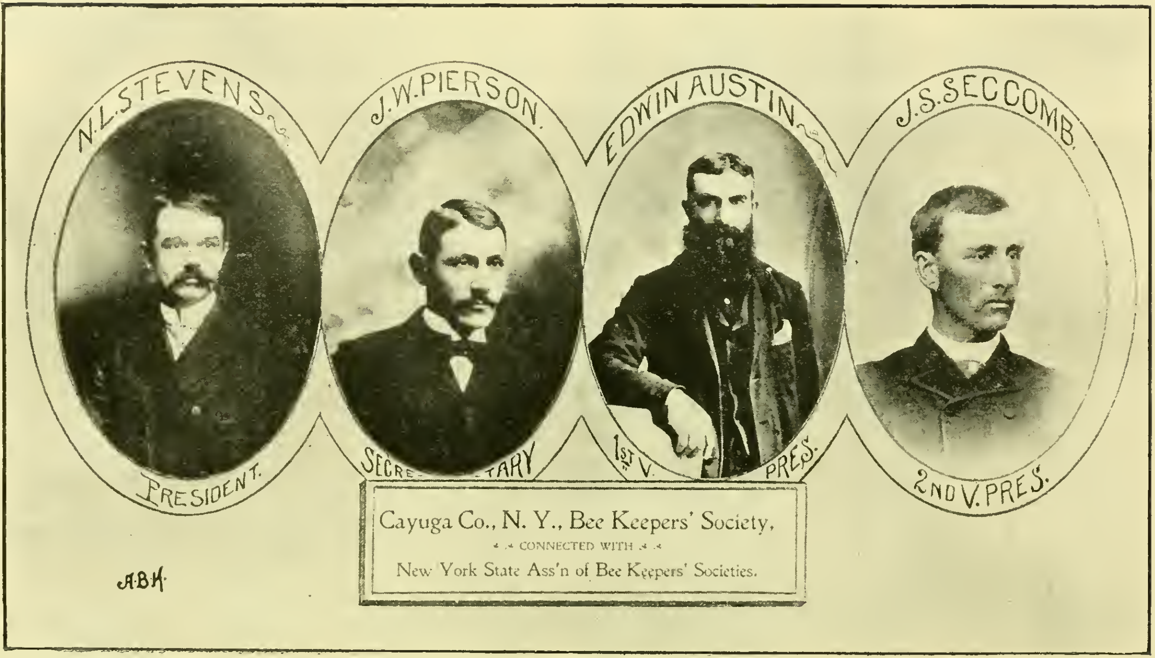
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CONNECTED WITH
New York State Ass'n of Bee Keepers' Societies.

[SEE PAGES 164 AND 179.]

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI SEPTEMBER, 1901 No. 9

CAYUGA COUNTY (N. Y.) BEE-KEEPERS' SOCIETY.

BY N. L. STEVENS.

THE Cayuga County Bee-keepers' Society was organized at Auburn, N. Y., February 16, 1899, with a membership of thirteen. For several years prior to this time, the matter of organizing a local society had been discussed by some of the more progressive bee-keepers of the County, but not until several from our County attended the meeting of the State Association at Geneva, in January, 1899, was the ball started rolling. Under the direction of W. F. Marks, President of the State Association, a call for a meeting of the bee-keepers of Cayuga County was issued and a permanent organization effected, as above noted.

The present officers of the Society were elected at the first meeting and have been continued in office at the two succeeding annual elections. They are: N. L. Stevens, Pres., Venice, N.Y.; Edwin Austin, 1st V. Pres., Moravia, N.Y.; J S. Seccomb, 2nd V. Pres., Auburn, N.Y.; A. B. Comstock, 3rd V. Pres., Sherwoods, N.Y.; J. W. Pierson, Sec., Union Springs, N.Y.; T. Brigden, Treas., Fleming, N.Y.

Although we have lost two members by death, our Society has prospered, as we now have about thirty members on the roll.

Through the aid of the State Bureau of Farmers' Institutes, in common with the other County bee-keepers' societies of the State, we have been furnished a competent speaker and have held a Bee-keepers' Institute in connection with the annual Winter meetings, which have proven very interesting and profitable.

At its last annual meeting our Society voted to take advantage of the offer of the National Bee-keepers' Association, and joined that organization as a body, thus securing to our members the benefits of individual membership.

Venice, N. Y.

❧

"The man who isn't doing something to benefit his fellowmen would better change his business."

❧

GOOD MANAGEMENT MAKES GOOD LUCK, ETC.

BY G. M. DOOLITTLE.

OUT here in the country there has been music all Summer long, from early morn till night; music which has not been made by the frogs or birds. It has been the hum, hum, hum, of the busy, enterprising bees. The bee-keepers' wife, in the midst of her house-cleaning, sewing or getting dinner, has often paused to listen to the melodious strain, and intent on the rapidly filling section boxes, forgets to frown and scold as much as usual when things go wrong in these matters, often wondering, perhaps, whether her husband will have any "luck" with the bees this year, as she sees visions of new buggies, new furniture, new carpets, new dresses etc., as they play "hide and seek" in her thoughts.

Yes, luck! that is the mystic charm we hear so much about in connection with bee-keeping by those who have just entered into it, and often by the old fogy bee-keeper who has been in the business for years. Queer thought! There is not any more luck following the bee-keeping industry than there is in the grocery business or the carpenter's trade. It means simply what ability you have for work in that line, how much energy you put into it, how much time you devote to it, how enthusiastic you are over it, how many of the little kinks you study into, and what knowledge along that line you have or can acquire, and how you apply that knowledge. At least, that is the way I look at it after being in the bee-keeping industry for nearly thirty-three years. Luck depends on systematic, persevering care and attention. If your bees are left to care for themselves, with an occasional oversight when you have no other pressing work or the hammock ceases to be enjoyable to you, then I venture to say that you will have the usual "bad luck" we hear so much about. Again, give them the care they need, and that regularly and in the right time, the same as you would your pig, that pig which you expected to make outweigh your neighbor's which was born in the same litter, and my word for it, and the flowers secreting honey, you'll have luck that will make your neighbors open their eyes. You cannot expect to have it unless you work for it, for hives open at the top during Winter and Spring, no thoughts or work about securing a multitude of bees in time for the blooming harvest, no preparation for surplus honey before it comes, and no inspiration in your heart which makes the tips of your fingers itch to be doing something all the while to make the bees prosper in your hands, all tend to make the time near at hand when your neighbors will say, "I told you that A. would never have any luck with bees." Undoubtedly this is where many a beginner has made his mistake; he relied too much on that magic word, luck.

If you have entered into bee-keeping and find yourself too busy to properly attend to them, turn the bee business over to some member of the family who will give it the time, study and attention required for success in any line, and your luck will be assured. See the bees often, keep their hives warm, dry and comfortable during Winter and Spring, know just when the flowers bloom which give the surplus honey in your locality, work to secure the maximum amount of bees just in time for that bloom, put on the surplus arrangement at the very beginning of that bloom, and take off the surplus at the ending of the same, when the honey in the sections is snow white, so it will captivate every eye which is placed upon it, get it off to market at the right time and in the most marketable shape, and then properly prepare the bees for Winter again, and you'll have no further cause to depend on the word "luck."

UNPAINTED HIVES.

I am glad Arthur C. Miller saw fit to write again on this matter, and in such a kindly spirit as he did on pages 122-'3 of the BEE-KEEPER for July. The readers now have two of his articles on the subject of unpainted hives as against one of mine, and I am perfectly willing to leave the matter in their hands, allowing each to paint or not to paint as "seemeth good in their sight." Allow me to suggest, however, that truth cannot be obtained by trying to be a Miller or a Doolittle in any matter, but by trying to be "your own blessed self." In this unpainted hive matter, set apart a certain number of single walled hives, paint half of them and leave the other half unpainted. After using both in this way for a term of years you will know of a truth which is best suited to you and your locality. The proper way is to test anything on which writers disagree. And after so testing it will do you no harm to have a disagreeing party tell you that you are "losing prestige by trying to talk or write on subjects about which you are far from being well informed."

Borodino, N.Y.

◆

"A man is not defeated till there is no more fight in him."

WINTERING BEES IN CANADA.

BY W. J. BROWN.

ASSUMING that the Fall or Autumn work is complete, and that every colony has ample store (say from twenty-five to thirty ℔s of good honey) with a good queen, during the later part of October or the fore part of November, I see that my cellar (which is directly underneath my dwelling-house) is properly ventilated, by opening all the windows and doors for at least twenty-four hours, to allow the escape of all foul odors; then the windows are closed and darkened. The cellar is 23 ft. by 25 ft., 7 ft. deep, stone walls and earthen floor. There are set four benches, running lengthwise in the cellar, about fifteen inches high. A stove-pipe runs down to within one foot of the floor and connects with the chimney above; this is the ventilation for the winter.

My bee-yard is situated close by the dwelling-house, with an entrance to the cellar from the outside.

After everything was in readiness I commenced at nine o'clock A. M. on the 29th October last, and at three P. M. I had carried in and set on the benches in the cellar, one hundred and four hives of bees. This work was done by myself, alone, and my bees nicely stored away in six hours time for their long nap, there to remain until towards the middle of April next.

This constitutes the Winter's work with the bees here, except an occasional visit to see that no hives get clogged up at the entrance with dead bees, and an occasional sweeping of the floor to remove all dead bees.

I may say that I leave on the propolis quilt but remove the wooden cover, and also, that the temperature in my cellar remains for the whole Winter at about 45° Fahr. This method of wintering bees in our cold, frozen North, I have found successful.

Chard, Ont., Nov. 30, 1900.

◆

"He who works hard and uses all of a small opportunity will surpass the man who partly neglects a great one."

STIMULATIVE FEEDING — POLLEN SUBSTITUTES ETC.

BY ADRIAN GETAZ.

IN a previous contribution I spoke of feeding milk to bees in the Spring for stimulative feeding (*Revue Internationale*). I forgot to say that the article had been translated from the German and was from Dr. Dzierzon himself.

By the way, Dr. Dzierzon has reached his ninetieth year recently. His birthday was celebrated in Germany in a way showing the appreciation of the German bee-keepers.

Mr. Daussy, instead of milk uses flour —mixes it with the honey fed early in the Spring. The proportions are not stated.

While on the subject it might be well to make a few remarks:

In the first place it seems evident to me that the supply of pollen kept over the Winter must soon give out in the Spring, when breeding begins in earnest, and that in many cases brood-rearing has been probably curtailed from lack of pollen or some substitute. Feeding flour may answer sometimes, but not always, from the fact that the weather is too often unfavorable, either too cold or too rainy for the bees to fly.

Whether stimulative feeding is profitable or not must depend chiefly on the climate. In Northern latitudes the Spring always opens at once and quite warm, as soon as the snow is melted. The colonies after a long Winter are weak and without any brood. There is only a short time to build up for the harvest. Under such conditions stimulative feeding and all other means that may increase brood-rearing should be used.

Mr. Doolittle objects to stimulative feeding but he attains the same end by spreading the brood regularly. Of the two ways I should prefer stimulative feeding, as it does not necessitate the opening of the hives and the consequent loss of heat.

In the middle latitudes the latter part of the Winter, I might as well say the whole Winter, consists of a succession of warm spells of weather, alternating with cold waves. During the warm days more brood is started than the bees can cover in the cold days, and a considerable loss of brood occurs every year. The trouble can be remedied to a great extent, but not entirely, by using chaff hives or otherwise well-protected hives. No need of stimulative feeding there.

Knoxville, Tenn.

◆

"I would rather fail and know the cause than succeed and not know why."

FEEDING FOR WINTER—SUGAR PREFERABLE TO HONEY.

BY L. E. KERR.

AFTER the honey harvest and before cold weather sets in, the energetic bee-keeper will have examined his colonies, giving them well-filled combs from hives that can spare them, or feeding those in need of stores on sugar syrup.

Not long ago the time was when every Winter thousands of colonies were allowed to starve because of the want of a few cents' worth of feed. At present, however, there are not many but understand feeding sufficiently well to keep their colonies from starving.

It is not a difficult matter to feed bees if done at the right time. The most important parts are to put the feed near the bees and to feed as rapidly as possible to avoid robbing. To prevent robbing it is necessary to feed inside the hive, and it is always best to work at night. An average colony at this time of year aught to remove enough syrup from a feeder in a single night to last an entire Winter. Feeding a pint or so at a time would cause the ruin of a strong colony at this season.

The amount of food to be given must depend altogether upon the locality of the bee-keeper. Here ten pounds of a fair quality of cheap sugar is all that is required per colony. Further North, however, where the bees seldom get a flight, twenty or twenty-five pounds of the finest grade of sugar is necessary.

If I am not mistaken, it is generally supposed that bees consume a greater amount of honey when active during Winter than when forced by cold to keep to their hives. I cannot account, then, for the fact that bees here, flying almost as much in Winter as in Summer, can pull through on from five to ten pounds of honey, while twice that amount is required in other places where the intense cold plays somewhere around zero all Winter. There is positively nothing our bees could find to work on during the Winter. Will some one who knows why explain the cause of this?

I have many times demonstrated to my entire satisfaction how much better sugar is for winter stores than anything else, where bees are kept for profit. For ease, economy and safety in wintering I henceforth will winter my bees on sugar syrup in preference to the finest honey.

Hurricane, Ark., July 18, 1901.

◆

"If you expect to make anything, expect to make mistakes."

◆

"It is a mistake to eat all you can, spend all you have, tell all you know, or show all you feel."

"No man who is succeeding gets tired in doing a day's work."

The Seasoning Series
By Deacon Hardscrabble

Dear Brother Hill:

Dr. Johnson once said, "No man but a blockhead ever wrote except for money." Either the bee papers pay better than reported or else——— If this shuts off "copy" or makes a heavy demand for cash just tell your brother editors not to blame me; lay it to Dr. Johnson. Why is it some of the boys write so much? It can't be for the big returns, and certainly there is ofttimes a grievous repetition. 'Tis also strange that some try to furnish not only the argument, but an understanding for the readers. Won't you have that A. Q. Cumber put on ice? They're better so—and too he seems hot over his "discovery." Where has he been all these years that he never made the "discovery" before? And while you have him in hand just call his attention to those who *do* read and sometimes write for the bee papers, who always seem to feel themselves competent to pass on everything connected with bee-keeping all over the wide, wide world. Wouldn't it be a refreshing relief if their light could be put under a bushel for awhile?

I see that Chicago editor thinks I am a bit mixed over those swarms which "may be" in a natural condition far from any other. Just ask him if 't is customary for Nature to make a mistake (?) of putting a swarm beyond reach of other bees? Also ask him how Nature will tell that swarm that there are no other drones within reach? And too, I would like to know if there isn't a great chance of the new swarm, which is the next year to be planted near by, being from that first "may be" swarm? To paraphrase Pope:

> Nature and Nature's laws lay hid in night;
> God said, "Let Dadant be!" and all was light.

The Sage of Borodino has my sympathy. Straws, roots, millers all hurtling about his poor head. It reminds me of the parrot who used to get the dog into innumerable fights by his oft-repeated "Sic him!" (Not the *sic* Bro. Taylor and others played with). At last the dog located the trouble and chewed that parrot. After the fracas was over the soliloquy of the much dilapidated Polly was: "I talk too blamed much!" I am not yet ready to say who is which. Guess you and I had better stand aside and watch the fun.

Now you've done it! I told you those foot notes would trip you up. Serves you right, too! That Mr. T. S. of Peelee Island is right on the pollen matter; so also was Mr. Gregory. It is just a case of view-point. Some flowers pollinate perfectly by wind, some don't, that's all. Next time think twice or go ask somebody.

"Is that a dagger I see before me?" or is it only one of the Swarthy Moor's points? Naturally one would suppose a review was a look backward, and much looking backward is the dotage of advanced life. But don't presume on that definition and go to fooling with W. Z. H., for his "Review" is of a different breed of cats altogether. Years don't count with him—he's actually getting kittenish. Lives in a metropolis, too, where they have factories and electric lights, and water fountains and macadamized streets and sidewalks. Do you think he will speak to we uns when he comes? D'ye mind the directions he gives for introducing queens—to use a pipeful of tobacco? Now does he mean enough for the bowl of one of those tiny French things, or for my cob pipe, or enough for a sociable German pipe—say a pound or so? What sort of a pipe does he smoke, anyhow?

Now we know why those crooked sticks of the social fabric, the hoboes, so assiduously patronize the flowing bowl—or tomato can. Listen to the heresy of that Home Circler: "We must let the hard, forbidding sticks of character soak—and soak—and soak." (*A. B. J.* July 25). That comes of living in a land flowing with wine and honey.

In *Gleanings* for July 15, a Texan and a Wisconsinite shout loudly for the principles so long fought for by the Dowagiac veteran, but they not only give him no credit even at this late day, but try to accomplish the ends by using a poor substitute for his perfected appliances. One of them even goes so far as to get up a hyphenated name for his makeshift. Isn't it about time the Dowagiac veteran was given full credit for what he has done for us?

Our brothers across the pond usually take particular pains to give credit to whom credit is due, while we often go to the other extreme and try to put forth as our own the results of another's labors. And there is wisdom in the Englishman's policy, for there is many a good idea which, though not merchantable, does bring a modicum of glory to the originator and which, were it not for the policy which makes just credit sure, would perhaps never have seen light.

Let us be just if for no higher motive than our own self-interest—perhaps the nobler will come later.

"Envy will merit as its shade pursue,
But like a shadow proves the substance true."

Yours as ever,
JOHN HARDSCRABBLE.

* * *

"Any fool can give advice, and he is continually at it."

BEE-KEEPING AS A SIDE ISSUE,

Or a Back-yard Industry—A Lesson for Beginners.

NO. 2.

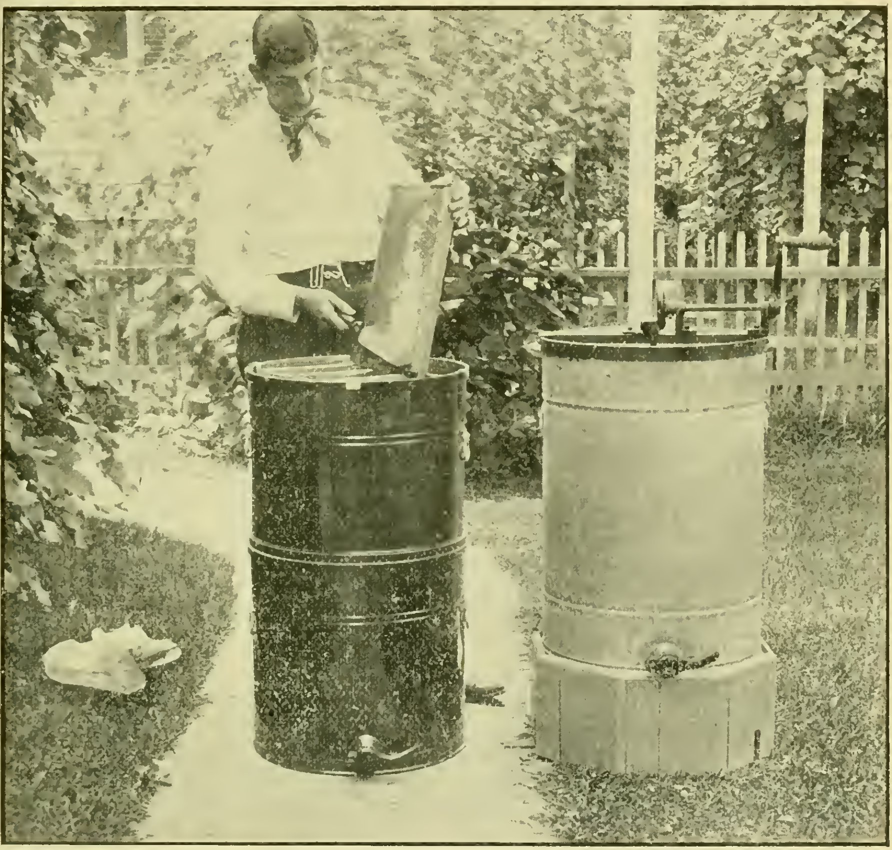
BY F. G. HERMAN.

IN the days of the old-fashioned bee-gums and box hives the bees had no choice but to build their combs on to the walls of the hive. There was no way for the bee-keeper to examine the progress of affairs while the work of gathering and storing was in progress, and when the time came to rob the hives there was nothing else to do but kill the goose that had laid the golden egg, in other words, to exterminate the bees with brimstone, after which the honey had to be cut out in chunks, an operation that of course caused the hives to "bleed" and much honey to run to waste. As very much of this comb had been used by the bees in brood-rearing, it was dark and tough and unfit to eat, so the honey had to be separated from the combs by the old method of squeezing it through a thin cloth, hence the name of "strained" honey, which name still clings to the liquid honey of to-day, but the strained honey is far inferior in color and quality to extracted honey produced in the modern way. With the movable frame hive all these difficulties are overcome. The bees build their combs in neat frames which can be taken out and examined at will without injury to the bees or to the honey itself. When it is thoroughly ripe it is taken from the hive ready to be separated from the combs.

Another very important invention is

the honey extractor, a device whereby the liquid honey can be extracted from the combs by turning them swiftly in a sort of cylinder, the honey being forced out by centrifugal force. This does not in any way injure the combs, which can be put back in the hive to be refilled, and thus a great saving wrought of time, honey and money. Extracted honey can be kept indefinitely and need not be hurried off to market for fear of perishing: in cold weather it will usually solidify.

An idea that many people seem to have in regard to bee-keeping is that it is necessary to plant a certain kind of crop to feed the bees. I was much amused one day when a lady enquired of me very seriously if I went out into the fields and gathered flowers and brought them home to the bees and strewed them in front of the hives for the bees to feed upon. Such extravagant notions are quite prevalent. Nothing could be more mistaken. The bee is a miller to whose mill everything that comes is grist. She gets her honey from trees and plants as well as flowers. She roams as sweet odors lead her, through two or three miles of the surrounding country, and she cares not if she transgresses property rights or filches her stores from your neighbors' flowers and trees. By the latter she is most always welcome, for



MR. HERMAN UNCAPPING HONEY FOR THE EXTRACTOR.

their hope of posterity depends somewhat on her, and your neighbor if he is at all intelligent and knows anything of the mutual understanding between bees and flowers, will also gladly welcome your busy, yellow, shining, humming horde of marauders.

But one difficulty still remains, at least which seems a difficulty to the beginner, and that is the marketing. This is easy, too, when you know how. The A B C of marketing is to work up a local trade. In the first place your bees themselves will advertise you and people will come to you for honey. But a surer and more business-like way is to take or send samples of your different grades of comb and extracted honey and get orders from the grocers of your own and neighboring towns. I have tried this method in the New Jersey towns and villages around me with such success that I sell more honey than I can produce. Still, all persons may not be able to adapt themselves to do their own selling, or may not feel inclined to take up this branch of the business; from such the commission merchant is ever ready to receive consignments of honey and can dispose of any amount without any trouble to the producer. In addition to selling of honey, queen-rearing is another pleasant and profitable branch of the business. Ordinary untested queens at certain seasons of the year will fetch a dollar apiece, while a blooded beauty who has been properly mated will bring sometimes as much as three dollars.

Englewood, N. J.

* * *

"We look backward regretting, or forward hoping, while the present stands offering us flowers."

* * *

Clothes Pins Come Handy.

Talking about forming wire queen-cell protectors, a clothes pin makes a better former than a lead pencil over which to stretch the three inch wire squares that make the cells. All the preparation needed is to chip off the rounded head of the pin. And, by the way, the same clothes pins make good formers for artificial queen-cells, *a la* Doolittle. Mark on them with lead pencil the various depths the dipping is to be made in the process of depositing the wax. M. F. REEVE.

* * *

PREPARING BEES FOR WINTER.

BY ARTHUR C. MILLER.

GIVEN abundant stores and time to fix things to their liking, a good colony will winter under all manner of conditions. Mr. Heddon has said that absence of pollen would ensure successful wintering, and has explained his reasons at great length. It would be presumptuous on my part to dispute with him the results of his investigations, and I have no inclination to do so as I believe he is right along the line of his theory. But to many, if not most of us, the labor and care involved in getting rid of all pollen and feeding up on sugar stores is decidedly beyond our inclinations. We must have some less laborious way even if at more risk, and at the same time we wish to make the danger as slight as possible.

There are five factors to the problem, and I place them as follows: A good sized colony with plenty of young bees; abundance of ripe stores; a sound hive; the foregoing three factors combined early enough to enable the bees to place the stores to suit themselves and to seal things up; and lastly the hives put where they will not be flooded by any winter deluge. To conserve the food supply the "sound hive" may be a chaff or other protected hive, or the hives may be placed in the cellar; but indoors or out the other factors remain the same. Whether burlap, enameled cloth, or a tight board cover be put over the bees is a disputed question. After much experimenting I have settled on enameled cloth with sawdust or other non-conductor over it, and it gives me entire satisfaction. Other persons are equally sure that they want burlap, but unless it is put on quite late in the Fall the bees make it almost like enameled cloth by the liberal application of propolis. I doubt if it makes much difference which is used provided the bees have time enough to get settled before cold weather. If prepared early enough a good colony, though with decidedly inferior stores, will get into such shape as to make good wintering reasonably certain. Without time to get settled before cold weather, a good colony with good and abundant stores will winter poorly. To emphasize this still more, I say that early preparation is the most important factor outside of the bees and quantity of food.

There is also another matter to be considered at this time; it is the Spring care of the bees. A colony with a goodly proportion of young bees now will not "Spring dwindle," and any colony that has not plenty of such bees should be united at once to some other colony. Such precautions taken this Fall will lessen several fold the attention needed in the Spring and will render more certain the next season's harvest. Do not let the desire for a few more pounds of Fall honey cause you to delay the Winter preparations. In this latitude I have all supers and extra combs out and brood chambers closed down by September 25, not to be opened again until the following Spring.

In considering what I have said please remember that I am writing for the latitude of Southern New England, but I know that much of the foregoing is equally applicable to other parts of the country.

Providence, July 25, 1901.

* * *

"It isn't making a mistake, but repeating it, that merits censure."

* * *

Absolute Need of Bees.

Everyone growing fruit or any plant which is to yield seed should be interested in bee-keeping, and either have a few colonies near his orchards or fields, or should try to induce some party near him to engage in keeping them. It has been repeatedly demonstrated that where there are plenty of bees to pollenize the flowers, the fruit, whether it is edible or only the seed capsule, will be more abundant, more prolific, and much more perfect. It is true that bees may fly for several miles to find the nectar from some favorite plant, but not if they can find it nearer home, nor will they do so in bad weather. More than one instance is on record of orchards in full bloom at a season of rain or high winds, when none set a good crop of perfect fruit excepting such as were within a quarter of a mile of the bee stand, and even in a large orchard they have failed to go to the farther end of it, surprising the owner by having his trees bear bountifully at one end of the orchard and yield little or nothing at the other end. The beans and peas are equally dependent upon the aid of the bees for perfect pollenization; and while there are other insects that may aid in distributing pollen, none equals the honey bees, and none other gives a return of luscious honey for a little care.—*American Cultivator.*

* * *

The King Bird.

Many bee-keepers feel it their duty to destroy any king bird seen about the apiary, as much as poultry-keepers would a hawk. But if the report of our Agricultural Department is correct, this is a mistake. They examined the stomachs of 281 king birds shot in different parts of the country, and found bees in but fourteen of them. In these there were 50 bees, of which 40 were drones, four were workers and six could not be identified, being too badly broken.

There was then only a possible ten worker bees to 281 birds. On the contrary there were nineteen robber flies, which often do much damage among bees. There were beetles such as those whose larvæ are the wireworm, the plant eating grubs and the various cutworms, the cutworms themselves, leaf hoppers and other insects injurious to fruit and grain, with some wild berries and grapes. —*Florida Farmer and Fruit Grower.*

The Bee-keeping World.

SWEDEN.

Bee-keeping in Sweden dates back to the dark ages. Although some parts of the land are enveloped in snow and ice for seven months, the bees there have become acclimated and endure the long winters fairly well. More bees were kept during the middle age than are now. The reason for this lies in the fact that at those times Sweden was isolated from the rest of the world the greater part of the year and was obliged to get along independently. The honey had to answer the place of sugar as the latter could not be imported at all times.

In the thirteenth century honey was used as a means to pay taxes; one ton of honey equalled six tons of corn.

The oldest practical bee book was published in 1686 by Erici; a better work later—in 1728—by Triewald. In another bee book of 1753 the desire is expressed to make the combs movable. In 1786 Linnæus published a work of value. He explains therein that the queen leaves the hive only for mating and when swarming. He advises to clip the queen's wings to prevent the escaping of swarms. He says he can scarcely understand how it is possible for a queen to lay as many eggs in a day as he had observed. During the latter part of the nineteenth century less interest in bee-keeping was manifested among the people of Sweden and fewer bees are kept now than were before.

GREECE.

The honey and wax produced in Greece annually is valued at about two hundred thousand dollars and the supply is not equal to the demand by a long way, consequently prices range high. Ordinary honey brings 25 cts. per pound quick. Fancy honeys, such as is produced on Mount Hymettos and the rose honey from the Province Karistia brings two and three times as much. Wax brings 80 cents.

ARGENTINIA.

Honey and wine used to be stored in goat-skins in former times. In Argentinia honey is brought into the market in this same fashion. The honey is made from sugar cane syrup and is exported to Europe to some extent. (*Liepziger Bienen Zeitung*).

BRAZIL.

In Brazil bee-keepers complain of their bees dying off rapidly. Poisonous honey is supposed to be the cause. Inside of three weeks one man has lost forty-two colonies out of forty-five. Another one lost fifty-four colonies. The losses do not occur every year.

AUSTRIA.

The introduction of queens by means of an artificial queen-cell is recommended in the *Bienen-Vater*, and Doolittle is given the credit of having been the first to make these artificial cells for that special purpose. He is reported as going about it as follows: "Taking a round stick (pencil shaped) of proper size and soaked in water, dipping the same into melted wax several times to form a heavy covering and thus making a thimble-shaped cell which is slipped off from the moulding-stick when the wax is hardened. Covers for these cells are cast in a similar manner and used to close the cells after the queens are put in." Cells must not be so roomy as to allow a queen to turn around in the cell.

◆

Austria is mountainous in many sections. The honey-flow on the hills is necessarily later than it is on the plains to the extent of weeks and even months in some cases. Migratory bee-keeping is the natural result and colonies are usually carried on the backs of men and women to the rather inaccessible locations.

ITALY.

The Pope Urban VIII. (1623-'44) indulged in the pleasures of bee-keeping, he himself managing a large number of colonies. His aim, like Frederic the Great's, always was to induce the priests and laity alike to engage in bee-keeping.

GERMANY.

Portable apiaries are recommended in *Gravenhorsts' Illust. Bienen Zeitung*. An illustration depicts one with a capacity of fifty hives. The cost of same without the hives (simply an enclosed wagon with proper fixings, shelves etc.) is said to be $150. In the same paper a swarm-trap (net) is offered for sale at about 75 cents. The trap is so constructed as to allow free ingress and egress to the field-workers, yet it secures the out-rushing swarm or conducts it into a new hive, as desired.

◆

Reidenbach claims, in *Gravenhorsts' B. Z.*, that healthy combs develop formic acid which in itself is a preventive of foul brood. Old brood combs, in particular such as have not been regularly used for breeding, also mouldy or filthy combs, are condemned by him in the strongest terms as breeders of foul brood.

◆

Use none but worker combs in the extracting supers. If a queen should stray up the loss will then not be so serious.—*Gravenh. Ill. B. Z.*

◆

Divish says, in *Ill. Monatsblatter*, bees do not freeze, but always starve first. He has observed that bees often starve with plenty of unaccessible honey in their hive. He advises to never disturb the bees after July but allow them to fix things according to their own notions.

◆

New swarms are classified by Husten, in *Leipz. Bienen Zeitung*, as first swarms, after swarms, virgin swarms and singer swarms. A virgin swarm is one cast by a young swarm of the same season. A singer swarm is a first swarm with a virgin queen.

◆

Fleishman says, in the same paper, that it looks as if money lies around loosely in America or else the people, bee-keepers in particular, are easily taken in. He refers to the long-tongued queen trade, with $200 being paid for a single specimen.

◆

Germany and Austria support many more bee journals than does America. The reason for this is that the many different bee-keepers' organizations each and all have their own official organ. In consequence many of these papers have a rather local character.

◆

The *Scheswig Holstein B. Z.* gives a cure for corns. It is nothing more or less than bee glue or propolis. Warm it and spread a plaster. Apply it and leave it on three or four days, when the corn is sufficiently softened up to be removed with a knife without difficulty.

◆

When Dzierzon celebrated his ninetieth birthday not long since he received twelve hundred postals and letters of congratulations from the bee-keepers of Germany.

◆

The bee-keepers of Germany seem to be of one mind as to how to load beehives containing bees on vehicles. The frames should stand parallel with the axle as the greatest jolting is from side to side.

F. GREINER.

AUSTRALIA.

A few heads of millet tied together is recommended for a bee brush by one writer.

◆

W. S. Pender has tested every type, shape, color and disposition of the Italian bee and one thing he has noted is that, "the bees from a long, narrow-bodied queen—a queen that indicates a want of development in her ovaries—are never producers of first-class honey gatherers; whereas, queens that are blunt pointed on the abdomen, something like a drone, with a short abdomen, are always very prolific and usually produce excellent honey gatherers." Continuing he says: "This shape of queen is obtained from Italy reared queens and never from American reared queens."

◆

A Mr. Scobie has noticed that nervous bees are no good. "Quiet, well-behaved bees were the best honey gatherers," says he.

◆

"You may take it as an axiom," says the *Bee Bulletin*, "never to fuss with and nurse weak colonies." What Brother Tipper would have us do with them he does not say. As the strong ones require no fussing and nursing, then there is no need of it at any time or under any conditions in the apiary.

◆

Among the most simple remedies for stings is honey itself.—*Bulletin.*

◆

The present membership of the New South Wales Bee Farmers' Association represents over 3,000 working hives.—*Bulletin.*

◆

The Australians are anxiously awaiting the advent of an uncapping machine.

A discussion of the subject at the Victorian Convention discloses the fact that bee-paralysis is very prevalent.

SWITZERLAND.

The question has been asked by the *Revue Internationale* whether extracted combs should be cleaned by the bees before being put up for Winter.

The answers are about half for yes and half for no. Those who do not have them cleaned say that they are not so brittle in the Spring and are much more quickly accepted and filled with new honey by the bees. But they must be kept in a mouse-proof and dry closet and be fumigated two or three times during the Winter with sulphur, in order to prevent molding and to destroy what moths might be there. One of the correspondents says that sometimes the supers of combs not cleaned are about half full before those of cleaned dry combs are touched.

◆

Mr. Maupy (*Revue Internationale*) weighed the nectar brought in the sacs of bees coming from the field, and found from thirteen to seventeen miligrams to the load.

◆

Among the advertisements I find veils made of very thin silk threads with meshes as large as possible, yet preventing the bees from passing. They do not appreciably obstruct the sight and give better ventilation, which is a valuable advantage in warm weather.

ADRIAN GETAZ.

◆

"All advice is not good, and it takes a wise man to make judicious selections."

◆

The Johnstown Flood.

One of the best attractions on the Midway of the Pan-American Exposition is the Johnstown Flood Not only as a highly pleasing entertainment does it appeal to an observer, but also as an interesting and instructive exhibition from an artistic and scientific point of view. Some idea of the magnitude of the concession may be realized when it is learned that its total cost amounted to nearly $75,000. The story of the Johnstown flood is graphically told and vividly illustrated. Aside from its educational interest the entertainment is particularly meritorious for the wonderful mechanical and electrical genius shown in its construction and operation. To the younger as well as the older ones it proves to be an attraction that well repays a visit.

OUR CORRESPONDENTS

Oak Hill, Fla., Aug. 13, 1901.

Mr. Editor: The heart is made glad when success crowns our efforts. I feel that way especially when noticing the editorial columns in the August number. I do not know how to tell you, dear friends, how much I appreciate the prize I am to be honored with; but you may be sure I am very glad to note I am to be awarded the second prize in the subscription contest which has just closed.

Please accept my many thanks and I hope to be able to repay you in return a much larger number of subscribers. I assure you, gentlemen, I will spare no pains in doing so. I desire to speak in regard to THE AMERICAN BEE-KEEPER and wish to say it is stepping out in a new era, as it were: it is always progressive—an up-to date journal. Its pages are always filled with good things for the bee-keeper of to-day.

I notice the editor is pleased that Bro. Root has discontinued advertising those so-called $200 queens; which I think myself is right, for no such fabulous advertisements should exist. While I have said nothing I have been giving the matter much study indeed. As Mr. Root has come over on our side and acknowledged his mistake, so like in every day life "the heart speaketh unto repentence." We should all appreciate his confession for we are all of Adam's race, full of guile and mistakes.

PORTER A. M. FEATHERS.

Fort Pierce, Fla., Aug. 10, 1901.

Mr. Editor: Please allow me space in your valuable journal to relate my experience of the past week with a swarm or nucleus of bees.

During several weeks of illness in the family I have had to neglect the bees. One day last week we saw symptoms of scouts hunting a location for an outgoing swarm. The next early morning, as I went to a neighbor's for milk for the sick husband's breakfast, I passed the bees and all was harmony. In the early summer I had placed some empty hives upon the inhabited ones to shade the bees from the intense heat. As I returned with the milk—only gone a few moments—I found that a small swarm had left their home and the bees were climbing up the side of their hive onto the top of the empty one above.

There were no bees in the air; they had crawled, and were still crawling up the sides of the hives, where, on top, was the dear little queen. I hastened in with the milk, and without gloves, veil or smoker, I brushed the bees into the empty hive. During the work some of the bees flew to a nearby shrub, the one which had been visited by the scouts the day before, but returned to the new hive which I had placed just in the rear of the old one. After all was quiet I moved the hive to its permanent place and the bees have set up housekeeping.

The entire proceeding seemed so unlike the habits of bees that I can not but think that the Lord helped me. He knew just how many things I had to do, and how tired I was, and He put it into the heart of the little queen to walk up to the top of the hive and stay there until I came back.

Again — last Spring we had an odd experience: A small swarm started off one Saturday afternoon and rested on a scrubby patch where the ground was very wet. As it was almost dark we said "Let them go."

As the sun went down the wind rose, and my husband placed a box up in the scrub, thinking the bees would be blown off their perch. All night the wind blew and howled. In the early morning light I sought the place, and there swung the bees, beaten around by the neighboring branches. My husband got a stick with a crook in the end and drew the branch down, cutting it and laying it in a hive. The bees seemed so glad of shelter that above the wind we could hear a contented humming. The runaways have turned out very industrious. Yours,

Ida Castle.

Paris Station, N. Y., July 15, 1901.

American Bee-keeper: I am glad to see what I call an extra good crop of honey for 1901—that is, as far as central New York goes—for here in old Oneida County there is the largest showing of white clover that I ever saw and basswood is now ready with a crop which promises to come up to '97. Where bees wintered well they are more than bringing home nectar from the clover. My bees are wintered on Summer stands, and though in 1900 showed some signs of black brood, this year are looking all right, and I have not seen any signs of it in this section. My bees are at work in their second super. As I use the Falcon Chaff Hive, 10-frame, there are 36 sections in each super, which, when full, makes one think he has some honey when he takes it to the honey house. I always put the second super under the first when it is about three-fourths done. In this way there is no trouble about the bees entering the super. My supers take the 4¼x4¼ section, which I get of the Falconer Mfg. Co., and always use the A No. 1. Out of 500 sections did not break but four. I always put them together with a light mallet and in the Winter, when I have not much to do, fill them with extra light foundation and set away where the dirt and mice can not work into them.

This year I am using an 8-frame Dovetailed hive and for convenience and lots of other things it is far ahead of any 10-frame chaff hive ever made. I can give many reasons and should like to have the subject discussed in The American Bee-keeper. There are many things that would interest many of the readers to have some of our more advanced bee men talk about. Yours respectfully,

W. E. Head.

FASTENING FOUNDATION IN BROOD FRAMES.

Ringdale, Pa., July 24, 1901.

Not having seen in print my method of fastening foundation in brood frames, I will tell the readers of The Bee-keeper how I do it. The top bar is passed over a buzz-saw, cutting out a strip equal to one-fourth of the wood the entire length; thus virtually removing one corner of the bar. When the frame is nailed the foundation is placed in this gain and the strip nailed back in its original position, thus holding the foundation securely. A thin board placed upon the work bench against which the top bar takes bearing while nailing, relieves the spring otherwise caused by the end bars.

A few years ago a young fellow out near Chicago thought of using wood splints instead of wire to keep foundation from sagging. Small straws are just as good as wood splints—the first joint of timothy or red-top or any fine straw. They should be first boiled in beeswax, the same as the splints. They may be imbedded in the foundation with a wire-imbedder, or pressed in with a piece of wood cut to a sharp edge. The straw need not be hot if the foundation is warm and soft. I believe the wood splint idea was condemned some time ago, the wiring method being faster. I should think the splints or straws would be about as fast as the wire, as the wire has to be put in the frames and then imbedded, while the straws may be simply laid on the foundation and imbedded.

In using straws or splints perpendicularly, care must be taken in handling the combs in hot weather, unless they are attached to the bottom-bar. I have had some very nice combs built by using medium weight foundation and by letting the foundation almost touch the bottom-bar and end-bars, and using pieces of straw two or three inches long at odd intervals through the sheet, thus letting the foundation stretch a little. If bee-keepers can find any good in these ideas, they are welcome to them.

Yours, WM. KERNAN.

* * *

"We live largely as we think; we think much as we read. Moral: Select good reading."

* * *

"No one is half so good, no one is half so bad, half so poor, half so rich, as he is believed to be."

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY BY
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H. E. HILL, - - - - - EDITOR.

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☞ Articles for publication, or letters exclusively for the editorial department, may be addressed to

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Editorial

We have thus far failed in our efforts to secure an adequate amount of appropriate matter for the publication of a special New York State number.

Page 121, July number, second line from bottom of first column, referring to saw palmetto, the word "pinnated" should have been *palmated.* The correction is made at the suggestion of Mr. Hart.

Mr. T.H. Barber, of Eddy, N.Y., reports a lively season from June 10 to July 27. From eighty-five colonies he had sixty-eight swarms and secured eight thousand one-pound sections of honey. Mr. Barber uses the eight-frame Quinby hive.

Upon the erstwhile placid bosom of apicultural journalism a significant ripple appears in some quarters. It is to be hoped that the "storms" of the eighties are not to be repeated. Better let go a little oil now before the seas rise.

From Union Springs, N.Y., Mr. J. W. Pierson writes: "During the last two years the white honey crop has been very light in this locality; but this year we have a good crop." THE BEE-KEEPER has pleasure in noting the good report this season from its home State.

The *Bee-Keepers' Review* for August presents several excellent pictures of its new home, at Flint, Mich. Brother Hutchinson is indeed cozily quartered; and his artistic magazine is in every way worthy of its present pretty surroundings. Success to the *Review!*

A correspondent has noted that Editor York, of the *American Bee Journal* has recovered from his "bad spell;" and says the attack was not nearly so severe as he had thought. He further suggests that he now sees no reason why Mr. Quirin and several others may not pull through.

The *Australian Bee-Keepers' Review* is a new monthly which had its birth in June last at Cave Creek, N. S. W. It is published by Geo. Colbourne, Jr., and is made up largely of extracts from the American press; though Mr. Colbourne evinces a thorough knowledge of bee-keeping.

Mr. Edwin Austin, of Moravia, N.Y., is an ardent admirer of Mr. Doolittle's plan in having queens mated in upper stories. In a recent letter to THE BEE-KEEPER, Mr. Austin states that he has had two queens laying uninterruptedly in the same hive for two months. He does not say whether this harmonious co-operation was terminated by the bees or by himself, however.

Our old and esteemed correspondent, F. H. Bussler, of Orizaba, Mexico, has been traveling through the United States, Porto Rico and Europe for nearly two years past. He is again back among his bees and hard at work straightening out the remnant which he found upon his return. We expect to have something occasionally from his pen hereafter.

The editor of *Gleanings* has taken a Western trip, and in consequence thereof has become enthusiastic in regard to the great extent and diversity of things apicultural in that quarter. His mental expansion is already evinced in his journal to a marked degree. The fact that he quotes Horace Greely, in his admonition to young men, however, strongly suggests that he has not yet "done" the South.

Mr. W. W. Somerford, of Caimito, Cuba, has five apiaries in trim for the opening of the bellflower this season. He thinks he will have work enough to keep several hands out of mischief from November to March. It beats all how business does keep up down that way, when we consider the reported "rotten" condition of the Island, from end to end, with foul-brood. Whether "trust" or mistrust is responsible for the reduction is not clear; but the fact remains that talk is getting cheaper every day.

"We have had more swarming this season than in years," writes Mr. N. L. Stevens, of Venice, N.Y., "and, while the clover yielded well, the flow from basswood was light, considering the extent of the bloom." Mr. Stevens' main crop, however, comes from buckwheat, which had not yet bloomed at time of writing. With all its adversities the Empire State holds some very cheerful bee-keepers this Fall. Any degree of success which may come to them is abundantly merited; for none are more progressive.

Notwithstanding the destruction of its home by the great fire of May 3, the *Florida Magazine*, published at Jacksonville, the ill-fated metropolis of the "Land of Flowers," continues to appear each month with its characteristic cheerfulness.

Though the magazine is primarily of and for Florida, its field embraces history, science, health, fiction, music and review, making an ideal home magazine. Anyone at all interested in the flowery peninsula should correspond with the publisher, whose announcement appears in our advertising columns.

Mr. Doolittle, in the *Progressive Bee-Keeper*, says that for twenty years red clover has failed to bloom in central New York; but this year fields were red, as of old, with the bloom, and that the bees rolled in the honey equal to a genuine basswood flow. This harvest was from the first crop of red clover. Surely no one can honestly lay claim to the possession of a strain of bees vastly superior to those offered for sale by any of the progressive breeders of the day. They are all breeding from stock which they believe to be as good as is to be had; and the private opinion of any of this class of breeders is to be respected.

A State Fair, to be held in Jacksonville Nov. 19 to 22, is an event now engaging the attention and interest of the Florida resident; especially if he belongs to that prosperous fraternity which systematically divides its time between packing fruit and vegetables in crates, and watching the postoffice for checks which come by every mail from the Northern cities. Superintendent W. S. Hart, of the Apiarian Department, has sent us a copy of the official premium list, which, we must say, has been admirably compiled, in so far as it relates to his department. Over eighty dollars in cash prizes is offered the Florida exhibitor of apiarian products.

After a period of hibernation extending over three years, the *Pacific Bee Journal* has awakened, and now appears with all the promise and vim typical of a true Westerner. Brother B. S. K. Bennett, as of old, has his hand upon the helm, which he left to fight for the stars and stripes in 1898. This, we believe, gives the United States eight bee journals; and it would seem that all manner of tastes might be satisfied by a selection from the list. It is evident that the future will develop some worthy representative publications in our line. That stage will be reached when a majority of bee-keepers have awakened to the possibilities of the business, and take to reading.

OUR FRONTISPIECE.

By way of a brief introduction we might say, in regard to the picture of the Cayuga County Association's officers presented in this number, that President Stevens, who is also Vice-president of the N. Y. S. A. B.-K. S., has been a bee-keeper at heart since he was twelve years old, and in practice since 1881, at which time he began with a swarm captured in the harvest field. At present he has four apiaries comprising nearly 400 colonies, being the most extensive bee-keeper of Cayuga County. These apiaries are operated with the assistance of Mrs. Stevens, who has always taken an active interest in the management of the bees. Though it is generally asserted that an increase of colonies is produced at the expense of the honey crop, Mr. Stevens has found by experience that, in his locality, where the buckwheat constitutes an important part of the nectar supply, with skillful management increase of colonies increases the surplus crop of honey.

Secretary J. W. Pierson discontinued the furniture and undertaking business to engage in bee-keeping and farming, in 1894; though he had been a bee-keeper since 1886 to some extent. Mr. Pierson has seventy colonies in the home yard, which are run for comb honey, while the out-apiary has thirty colonies devoted to the production of extracted. Mr. Pierson winters in packing cases on the Summer stands with success. He has pulled some first and second prizes from the State exhibitions, upon his apiarian products etc..

Mr. Edwin Austin, First Vice-president, is a veteran in the ranks, having begun bee-keeping with a box hive in 1862, and in 1866, or thereabouts, purchased the right to use the Gallup hive. He was one of the first to introduce Italian bees. In the production of comb honey he uses the wide frame. Queen-rearing was added to the business about ten years ago, and his average number of colonies has been about one hundred for the past twelve years.

The initiation of Mr. J. S. Seccomb, Second Vice-president, dates back to the seventies, when he procured a colony in a "log gum," and since that time, as a rule, has made the business pay. His stock has varied from ten to ninety colonies —last season he had ninety-four— but having sold and lost to some extent he is now operating about fifty.

TROUBLE IN ROCHESTER.

Early August issues of the Rochester (N. Y.) papers were very much animated over the repeal of the city's bee ordinances. From the meagre information gleaned from this source it appears that an alderman sought to wipe out the bees from the city by introducing some sort of an amendment to the existing ordinance. The *Herald*, in reporting the council meeting, has this paragraph:

> After a mix-up in which Frederick L. Dutcher as attorney for the Bee-keepers' Association appeared in opposition, the discussion of the amendment was indefinately postponed. Inasmuch as the present ordinance had been declared unconstitutional and the law officers of the city did not wish to appeal the case on the law, there was nothing left but to repeal the ordinance. So the old ordinance was repealed with only one dissenting vote. This left no ordinance whatever on the subject, but it is possible Alderman Baker may make the effort to get a new ordinance adopted soon.

The *Evening Times*, though, is the paper that waxes warm over the matter, and, by the way, indulges in an exposition of a lot of bee-keepers' secrets (?) not heretofore made public. The following is extracted from its editorial columns and is, therefore, official. Now read :

> The introduction of Alderman Baker's bee ordinance marked another step in the effort to rid the city of nuisances. Its repeal by the Common Council last night, *The Times* believes, was an ill-advised step and one that will be regretted. Why anyone should wish to keep bees in a city is a mystery. Anyone who has ever watched bees at work around sewer openings, street gutters and damp, filthy places of every nature should be in full sympathy with Alderman Baker's project.
>
> People who grow grapes and other fruits will also appreciate his efforts in this direction. At the time grapes are ripening we usually have very little rain, there are no flowers for bees to work on and street filth is scarce because of the dry weather. Then bees attack the ripening grapes, bite a hole through the skin and suck the juice out. More grapes are spoiled in this way every year than all the bees in the city are worth many times over. We may hear about bees going miles to load up with honey, but they don't do it when they can get anything nearer home, and they are not particular insects.

"York State" bee-keepers have a

very determined way of keeping from underfoot of those who would trample their rights; and Rochester will probably learn that the apicultural fraternity of the Empire State is not composed exclusively of the "hayseed" class of farmers typified by *Puck*. And who would have supposed that sewer honey was produced in the "Flower City?" If *The Times* is as accurate in its political opinions and information as it is on the subject of bees and grapes, its followers are in the wake of a mighty poor pilot.

❧

"If you don't know where success lies, perhaps you know where it is not, and that will show you what to avoid."

❧

PAN-AMERICAN TOURS.

The outdoor Recreation folder compiled by W. Sheldon Bull, which was recently issued by the press department of the Pan-American Exposition, has met with a hearty reception from the wheeling public generally, and the number of requests for copies that are being received each day, coming from a wide range of territory, testifies to the fact that the usefulness of the book is being recognized throughout the entire length and breadth of the country.

The maps of the city of Buffalo and of Erie and Niagara Counties were made especially for this book and are up-to-date and reliable in every particular. Besides these maps the book contains many other handsome illustrations of Exposition buildings and views taken from the surrounding country together with a general description of the outdoor features of the Exposition, graphically outlining the beauties that are unfolded to the visitor who approaches the Rainbow City through the most beautiful and artistic entrance to the grounds—that of the Water Gate. A detailed description of the various trunk line cycle routes leading to Buffalo, Niagara Falls and the Pan-American Exposition from all points within a radius of five hundred miles is also included. The books are invaluable to tourists and no wheelman or lover of outdoor recreation should miss the opportunity of securing a copy.

❧

"Most misfortune is the result of miscalculation somewhere along the line."

Honey and Beeswax Market.

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

NEW YORK, Aug. 20.—The demand for comb honey seems to have opened up for this season, and there is a fair demand. We have received some few shipments from New York State and the South, nothing large at present. Fancy white, 14 @ 15c.; No. 1 white, 13½ @ 14c.; No. 2 white, 11 @ 12c. Hardly any demand for extracted, some few sales reported at from 4½ to 6½c. ⅌ ℔. Beeswax is not active at this moment, but is ruling at about 27c.

FRANCIS H. LEGGETT & CO.

CHICAGO, Aug. 22.—White comb brings 15c. ⅌ ℔ for the choice grades with other lines not grading. No. 1 selling at 13 @ 14c., light amber 12 @ 13c., dark 10 @ 11c. Extracted fair demand at 5½ @ 6c. for white, and 5¼ @ 5½ for amber, dark grades 5c. Beeswax steady at 30c. for choice yellow.

R. A. BURNETT & CO.

BUFFALO, Aug. 19.—There is a moderate demand for honey with supply of fancy but light. Fancy comb 15 @ 16 c., extracted 6 @ 8c. Fair demand for beeswax, supply small; fancy wanted at 26 @ 28c. Advise marketing honey moderately now.

BATTERSON & CO.

KANSAS CITY, Aug. 19.—Demand is good for comb honey with light supply. White comb 15 @ 16c. The offering of extracted is large with but light demand at 6 @ 7½c. The demand for beeswax is good at 30c., supply light. New comb selling on arrival.

HAMBLIN & SAPPINGTON.

❧

"All we have to do to prove that half our disappointments are blessings is to keep a record."

❧

"To Teach the Young Idea to Shoot."

The J. Stevens Arms & Tool Company, of Chicopee Falls, Mass., are offering to distribute the sum of $500 to the sixty young persons sending them, before Oct. first; the sixty best targets made with Stevens rifles. The prizes range from $50 to $5. Send them ten cents in stamps and state the calibre of your rifle and they will mail twelve official targets and conditions of the contest. Please mention this paper.

❧

"Set your stake, and, before you reach it, set it further ahead."

"It often takes longer to slight a job than it does to do it well."

LITERARY NOTES.

The August number of the J. W. Pepper Piano Music Magazine opens with a song peculiarly appropriate to the season, "Down by the Sea," by Joseph S. Willing a writer who in this piece worthily sustains his reputation as a writer of exceptional ability. The magazine contains twenty-one complete pieces of original copyright music for the piano—ten songs and eleven instrumental. Ten cents, at all music dealers.

Mr. William Allen White has just returned from Lawton, where he went to write for The Saturday Evening Post, of Philadelphia, the story of the opening of the Indian lands. Mr. White's vivid account of the mushroom city that sprang up in a night is of striking and timely interest.

After a long rest in South Africa, Mr. Rudyard Kipling has returned to England and is busily occupied with his literary labors. One of his most recent stories is 'How the Leopard Got His Spots," which will be published soon in The Ladies' Home Journal.

Frederick Austin Ogg, in Modern Culture for September writes: In the political and constitutional realm, in which, be it remembered, the supremacy of the Anglo-Saxon lies, at no time has the tie binding the present to the past been wholly rent asunder. Never, under any circumstances, have Englishmen sat down to frame a new constitution in obedience to some dazzling theory. Each step in the growth of the English constitution has been the natural consequence of some earlier step; each change in English law and custom has been, not the bringing in of anything wholly new, but the development and improvent of something that was already old.

* * *

"Adversity is the spur which urges many men on to efforts which bring success."

* * *

ABOUT THAT CONVENTION.

Station B, Toledo, O., Aug. 26, '01.

Yes, Mr. Editor, as you say on page 152 of the BEE-KEEPER for August, the big Convention will surely be held as advertised, in Buffalo, September 10, 11 and 12, and everything is now ready for the good time coming, and you and your readers had better be on hand and help to enjoy it, and to help you all I can you may say that I can furnish about sixty delegates with places where they can get lodging and breakfast in nice, clean, private families for 75 cents, if they will apply to me before or at the Convention. All other delegates can secure accommodations at what I am assured are reasonable and satisfactory terms by applying to Dr. Pierce's Free Bureau of Information at 652 Main Street, and calling for Mr. Sidney S. Sleeper.

The Ontario Bee-keepers' Association has been invited to attend the Buffalo meeting, and I am just in receipt of President Newton's reply of acceptance, and we're expecting a large turnout of York State bee-keepers.

Very truly yours,
A. B. MASON, Sec'y.

* * *

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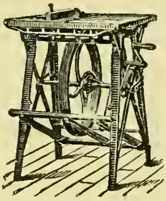

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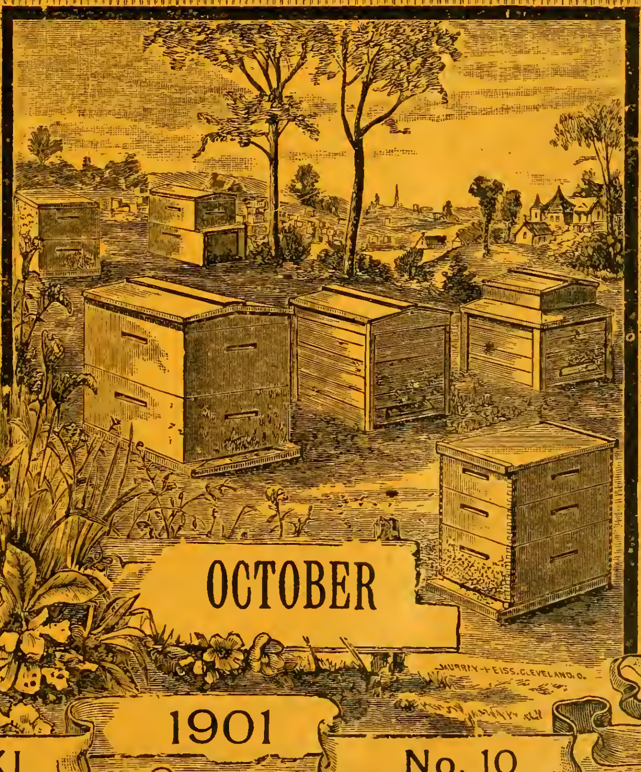
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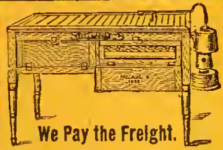

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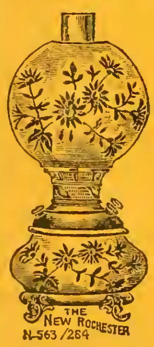

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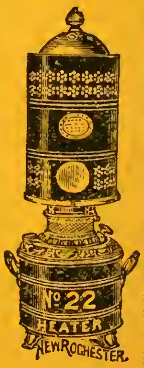

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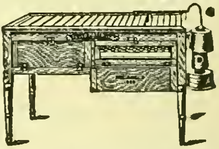

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI OCTOBER, 1901 No. 10

A FEW OCTOBER ITEMS.

BY ARTHUR C. MILLER.

POSSIBLY to all enthusiastic bee-keepers the most trying work in the apiary is the final shutting up of the bees and packing for Winter. In September, usually by the 25th, I go through all colonies, remove any extra combs and see that each colony has sufficient food. In October the packing is put in, or such other protection given as I deem necessary. Last Winter I had two colonies, each in a ten-frame dovetailed hive with a half-story full of sawdust over the enameled mat, and the whole hive from the under edge of cover to the ground surrounded by a single thickness of tarred paper. This was secured by strips of wood tacked around the top and bottom, and over the place where the paper lapped. The entrance of course was left open. The results were all that could be desired. The two colonies wintered perfectly, were strong in bees, stores sound and combs dry, and were the first to have supers put on. So well pleased am I with the results that I shall try the experiment on a larger scale this Fall. The tarred paper is virtually air-tight, at least 't is wind and water proof; but when the sun shines on it its blackness causes it to absorb much heat. I often saw bees at the entrances of these hives when none could be found stirring in any of the others, and during the late Winter months I began to fear that the results would be disastrous, but they were quite the contrary.

Of course this is only with two hives for one Winter, and it is not safe to place too much dependence on the method until it has been more extensively tried. I believe it is worth trial by every bee-keeper who has to consider the wintering problem. It certainly is cheaper than a chaff hive, and if the better condition of colonies thus protected proves to be the rule it will be a decided gain.

Another bit of work for early October is the sorting over of all combs that are out of the hives. The full ones or those partly full and sealed are stored away for future use; those having unsealed honey are placed in hives and stacked so all the bees may have ready access to them. As soon as they have been licked clean they are stored away, and together with the combs of honey before referred to, are fumigated. I do not bother with scraping the frames or fixing combs until Winter, at which season I have more time and the work is easier because the propolis is dry and brittle.

Some cool, dry day in the latter part of the month, I take a pot of thin paint and a wide brush (four to six inches wide) and all hives which need it are given a coat of paint. With such a brush and paint which is mostly oil, it is surprising how few minutes it takes to go over even a big chaff hive, and as for an ordinary dovetailed one it is but the work of a moment to do the whole trick.

Lastly, I rake up all grass, leaves and twigs so that any chance grass fires will not run in among my hives and send them up in smoke.

Providence, R. I. Sept. 4, 1901.

* * *

Envy's a sharper spur than pay,
And, unprovoked, 'twill court the fray;
No author ever spared a brother,
Wits are game-cocks to one another.
—Gay.

UNCAPPED SECTION HONEY.

BY G. M. DOOLITTLE.

A CORRESPONDENT writes as follows: "I am told that no section should ever be taken from the hive till fully sealed over. Is this right? Please answer in THE AMERICAN BEE-KEEPER."

As a general rule this is good advice, but there are times when the yield of white honey is just over and the yield from buckwheat or of dark honey is about to commence, that a loss in price may be the result if this is strictly adhered to. Mr. M. Quinby said years ago, and with much truth, too, that all boxes two-thirds sealed over containing white honey, should be taken off before buckwheat honey was stored in them at the beginning of that yield, as such partly capped boxes of white honey would bring more than when finished with dark honey, thus giving a cake of honey which was neither light or dark, and one which was not attractive in appearance nor agreeable to the taste. But I think I hear some one say, "If I take off honey before all the cells are sealed it is likely to take on dampness from the surrounding air and thus sweat and become sour?" This is because you are keeping your honey in an improper place, such as a cellar or other cool, damp place, where the best of honey will deteriorate after a time and become unfit for food. All honey should be stored in a dry, airy room which can be kept at a temperature of about 80° to 90° all the time, and in such a place the honey will be growing better all the while, whether sealed or unsealed. In this way it soon becomes so thick that the honey in these unsealed cells will not run out in crating, and if tipped over on the side of the comb, not a drop will be found otherwise than where it belongs, so that there is no daubing of the sections, hands or crate, which daubing is always spoken of as the reason why honey that is unsealed should not be removed from the hives. But, even if *you* have this unsealed honey in perfect order it is liable to be stored in some damp place while on the market, therefore I would always advise leaving honey on the hives till it is sealed, with the exception of times when honey of an inferior nature is likely to be stored with it. But I think I hear another say, "How about the close of the harvest for the year? I have lots of unsealed honey when the season closes." My plan of operation to secure all capped sections at the end of the season, as nearly as may be is as follows: When the bees show by lengthening out the cells along the top bars to the frames that they are securing honey from the fields, I put on five wide frames of sections, each wide frame holding four one-pound sections each, so we have room to the amount of twenty pounds capacity to start with. These are left like this until the bees are well at work in them, when I add two to four more wide frames, placing these at the sides of those first given. When this room is fully occupied I give more room at the sides, to about the same amount given the last time, and where I use the tiering up plan I have it so arranged that I can expand in a small enough capacity so that the bees are not discouraged by having too much room given them at once. By the time the bees fully occupy the room last given them at the sides, the first twenty sections are ready to come off, and when this is taken off the partly filled sections on either side are drawn together over the center of the brood nest, and wide frames of empty sections given at the sides again to the amount which I think they will need. Thus I keep taking off and putting on sections, or rather wide frames of four sections each, taking the finished ones from the middle and putting the empty at the sides, until the season begins to draw toward its close, when, as fast as full wide frames are taken from the center the others are drawn up till the space is contracted to the original twenty sections, or even less if I think it necessary. In this way the bees are given all the space they require at any time, while the chance for many uncapped sections in the Fall is reduced to its minimum. In order to succeed, even in this way, the locality we are in must be fully understood, else we may be still expanding at the very close of the harvest. No bee-keeper should rest easy till he is fully conversant with the locality he is in, and being thus conversant he can use all of his plans so as to meet the requirements of his locality.

Borodino, N.Y.

* * *

Much depends upon a man's courage when he is slandered and traduced. Weak men are crushed by detraction; but the brave hold on and succeed.—Feltham.

"STRAY STRAWS."

A Few Paragraphs from Dr. Miller's Department in Gleanings.

"We will hazard the prediction that the highest standard of excellence is to be secured through careful selection, rather than through in-and-in breeding," says the editor of American Bee-keeper. I'm too much of a coward to say I agree entirely with that; but I'll risk saying that in-and-in breeding is a pretty safe thing for us common bee-keepers to let entirely alone.

Robber bees that take stores by force, bee-keepers are familiar with. W. W. McNeal, in American Bee-keeper, calls attention to another criminal class—thieves. They take stores by stealth, and there is no apparent remedy against them. The best-storing colonies are the most likely to be their victims, and Mr. McNeal thinks we should be on the lookout lest these thieves make us err in judgment when deciding upon the best storers to breed from. [There may be something in this; but how is any one to prove that a certain colony produces large averages by dishonesty rather than by hard, honest toil?—Editor *Gleanings*.

A.C. Miller, in American Bee-keeper, prefers the Alley plan of rearing queens, and says that by the cell-cup plan "in the hands of any person but those of an expert, there are many chances of producing inferior queens." I don't understand why. With the Alley plan a careless person may have queens reared from too old larvæ, a danger not met in the cell-cup plan. But the Alley plan is less troublesome and takes less time. With proper care the best of queens can be reared by either plan. [Our Mr. Wardell, after having tried all plans, prefers a modified Alley plan; that is to say, he uses the Alley method; but instead of worker he uses drone cells, and, all things considered, he says, prefers them]—Editor *Gleanings*.

When cell-cups are used for queen-rearing, no matter how much royal food is given at the time, says W. W. McNeal in American Bee-keeper, the bees always remove it and in a few hours the larva is left dry. He thinks this is against rearing the best queens, so in about twenty-four hours he removes the larva and substitutes another, which will never be limited in its food. Would it not be cheaper to use the Pridgen plan, taking the cocoon cup with the larva? In that case I think there is never any stinting. [Some one else, some little time ago, I do not remember who, stated that all the royal jelly will be removed. Possibly there is something in this; but our Mr. Wardell says that whether it is removed or not, it has a tendency, and a decided one, too, to induce the bees to accept cells so supplied. The Pridgen method would probably be an improvement on this.]—Editor *Gleanings*.

* * *

The careful bee amidst his work I view,
Now from the flow'rs exhaust the fragrant dew;
With golden treasures load his little thighs,
And steer his distant journey through the skies;—
Some against hostile drones the hive defend,
Others with sweets the waxen cells distend;
Each in the toil his destin'd office bears,
And in the little bulk a mighty soul appears.
—Gay.

THE
SEASONING
SERIES
MANY THINGS BY SEASONINGS SEASONED ARE.
DEACON HARDSCRABBLE.

Dear Brother Hill:

Waugh! Oh, if I could only get hold of some of the boys and try to punch some plain horse sense into them! Many of them have only one idea, and that's wrong. Yes, I know I'm likely to get into hot water just as that Rhode Islander did, but I don't care; I'm riled clear through and am spoiling for a scrap. The Parson has been trying to mollify me, but he rubbed my fur the wrong way, so I mentioned "revivals" and now *he* needs mollifying. This long tongue business is all a delusion. After reading much of what has been written about it, one would be justified in believing that the bees' tongue was just a plain, simple sucking tube; and this because some of those *awfully careful observers* who have boosted up their own reputations by foisting onto an unsuspecting and simple-minded public, statements of things they mostly guessed at, have said so. T'other folks—the unsuspecting ones—scared at the labor Close Observer says was involved in his investigation, never look for themselves, but go on taking C.O.'s guess for gospel. Then C. O. blandly puts forth some more guesses, pats himself on the back, pockets his stipend, and becomes more famous.

> "For when we risk no contradiction,
> It tempts the tongue to deal in fiction."

Oh, fame, of what flimsy stuff art thou made—a plausible guess, taffy to the editor, a "puff," and there thou art in all thy glory! Thus art thou created, and on such material thou waxeth fat. But beware the man with the lance of Fact, for if he is ever able to catch the editorial favor, he will puncture thy bag of wind, and of thee naught will be left but malodorous tradition.

Brother Hill, did you never notice that that wonderful little tongue of the bee is never used—and cannot be—as the boys use a straw in the cider barrel? Contrariwise, the various parts are kept working in and out just like a lot of little needles in a knitting machine, and it is always the same whether the bee is taking honey from a big drop or is "licking the platter clean." Besides, 'tisn't the long tongue that takes the trick, 'tis the *hustle*. I don't know whether you are aware of it or not, but I surmise that you suspect it, those colonies which pile up so much more honey than the rest are the slickest *thieves*. They should be called "light tongued," and classed with other "light fingered" gentry. I have two of the breed, and as they are marked differently from the rest of my stock, I can spot them on sight, and they are superlative robbers. Oh, yes, they are piling in the honey while the other colonies are running behind. Must be from red clover—isn't anything else in bloom—and none of that.

That thoroughbred in Cuba, N. Y., hit the nail on the head when he said 'twas the snap and go in the bee that counted. Whew! but how he wields the "black jack," *vide A. B. J.*, Aug. 1. If I could I'd like to trot a heat with him—think of me trotting! Now, if your brother and sister editors could only corral about a dozen of his blood, what a royal stable you'd have. Why, the bee-papers would begin to amount to something; they'd be worth reading. You'll have to hunt quite a while to get a match for him; but you may be able to get some one who will trot a close second. There wouldn't be any more "Please, Mr. Blank, tell me through the columns of the Apiary Breeze what those yellow lumps are on my bees' legs"—followed by a vapid "space filler." If folks would only buy a text book and then read it, they wouldn't weary others and make such shows of themselves; and if the editors had a little more sand, they'd cut out a lot of "stuff." Some of the papers are getting dryer than an Arizona ranch; they'll take fire spontaneously pretty soon. Some have a string of editorials which are only "clippings;" others don't even have that, but just have a bunch of "ads" by the business manager. One of you editors will go and pay for a good article, the rest copy it; or worse still, garble it, and then first chap don't pay for any more; and you have all progressed one step forward and two backward. Also the contributor of the good article is disgusted and stops writing. If you doubt it, I will tell you of a host of them.

Again, observe how publishers and subscribers are "done." Publisher pays regular contributor for an article, subscriber pays for his paper; also for several others, whose publishers have done as first one did, then 'tis discovered that R. C. has sent same article to each paper, possibly having shuffled a few sentences. General disgust of publisher and subscriber, and latter drops all or all but one paper. Brace up and get a copyright; own what you print, and go for the thief who steals it, even if he does say "taken from the other fellow." If the nervy editors would do that, they'd soon drive out the good-for-naughts all along the line; would bring forth the well-posted, self-respecting bee-keepers in larger numbers, and everlastingly bury some of the tiresome "repeaters" who cumber the pages with tales so oft twisted and turned that they are thinner than Hamlet's ghost.

> "Their copious stories oftentimes begun,
> End without audience and are never done."

The smart bees are thieves, and so, too, are a weary many of their keepers. Aye, they fairly tumble over each other in their haste to steal another's glory in a new idea, be it a machine or an operation. Look at the case of Langstroth's hive, Heddon's hive, Alley's trap, Ferris' wax extractor and many others. Just see the attempts to get around a patent by putting forward some poor substitute or worse. (Now don't go and mix this with efforts at improvements; they're different). Look at the contributions and see how many ideas are stolen and put forth as original; and the editors help it along. They haven't the time to scrutinize? What are they for? Bah! they are guilty, too.

I can't waste any more good ink on your profession. I doubt if there is one who would take my advice if you sent it; they're so bloomin' wise in their own conceit. I'm going after "cats." Those skins that were on the barn when you took the photo were pulled down and eaten by some of the rascally cannibals soon after you were here. They're as bad as some of the bee-men who just live on each other. No! hold! the "cats" are better. Yours as ever,

John Hardscrabble.

* * *

Referring to The Bee-keeper, a Philadelphia subscriber writes, "The new department is brim full of pointers; you are bringing it up with every issue. It's the biggest fifty cents' worth 'that comes down the pike.' "

A NEW QUEEN CAGE AND NURSERY.

BY M. F. REEVE.

DR. C. J. MASSENGER, Collingswood, N. J., exhibited his Perfection Separable Queen-rearing Nursery at the outing of the Philadelphia Bee-keepers' Association, at the apiary of H. Horner, on the outskirts of Mt. Holly, N. J., on June 29th. It consisted of a bar having fourteen holes, in each of which was fitted a turned hollow wooden plug, having a shoulder on which could be slipped a spiral flexible wire cage, double in the upper portion and about four inches long, tapering to a point. In this could be slipped a pistol cartridge shell, capable of being withdrawn to release a queen after hatching. Each cage being seperable, could be taken out by itself and inserted in any colony by pressing a long wire point projecting from the upper end sideways. The entire string of fourteen cells could be placed in a hive at once. He said the wax cells were made by warming wax and pressing it into the wooden cups and using the ordinary forming stick. The larvæ could be transferred by any method. He claimed 50 to 75 per cent. would be accepted.

After the cells were drawn out the cages were put over them. The cartridge cup was used as a feeder by being filled with honey and sugar. Another advantage claimed was in the double spiral.

President Townsend exhibited the cups and cells used in "Swarthmore's" system and explained his separate cage for young queens.

Dr. Massenger said there was no danger of bees stinging through the wires of his cage and that the purpose of having the cells so long was to give the young queens plenty of room. The cost was $1.50 per frame.

Mr. Horner exhibited a frame of cells and wire cage used in the Pridgen plan of queen-rearing by artificial cup system of extracted larvæ, with cocoons and also samples of the cup used. He used his nursery altogether in his business of queen-rearing. He had nine out of eighteen cells accepted, and his best record was twenty-nine out of thirty-six. He preferred to use only one strip of cells to each frame, although two or more could be put on. He showed the process of shaving down very old brood-comb containing larvæ which he preferred to other and newer comb, extracting the larvæ and depositing them in the bottom of each cup. He said there was no necessity for using royal jelly. The bees attended to that. The objections by the members present to the Pridgen cage were that the cells were immovable and that Dr. Massenger's were superior in being separable. It was suggested that the taper in the wire cells might be dispensed with and the same size wooden plugs be inserted at the bottom as at the top.

Mr. Horner's apiary consisting of ninety colonies, located on three terraces, many having two hive-bodies and two supers, was inspected. He expects to get a ton of extracted honey. He requeens every year; uses no oilcloth covers, thereby avoiding propolis on the frames, and no division boards, spacing by hand. He prevents swarming by giving plenty of room. Had only one swarm this season. Most colonies were golden Italians.

The visitors agreed that this was a model apiary in every respect, particularly neatness.

Rutledge, Pa.

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There is no merit where there is no trial; and till experience stamps the mark of strength, cowards may pass for heroes and faith for falsehood.—A. Hill.

AUTUMN PASTURAGE.

BY BESSIE L. PUTNAM.

THE economical stock-raiser makes use of the fresh growths induced by autumn rains, thereby saving his stored fodder and hay until this supply is cut off, or at least damaged. The skillful bee-keeper, while he does not expect the bees to store honey in quantity in late Autumn, still finds many plants which will piece out the bill of fare from day to day and save necessity of drawing upon stored food. Formerly the buckwheat honey was about the last crop of the season; but of late years goldenrod, which has sprung up in every fence row and waste place, is really an important factor. The honey is of a clear, amber hue, and of a flavor peculiarly its own, much preferred by some to the dark buckwheat honey. The importance of the goldenrods to the apiarist may be approximated when we consider that there are about eighty North American species of this plant; forty-seven of which are included in the territory covered by Britton and Brown in their Illustrated Flora. As all save one are yellow and the points of similarity are so striking that even amateur botanists frequently experience difficulty in identifying the various species, those not versed in the science will have little trouble in placing kindred species, one or two leading forms having been learned. As a rule they are tall growing plants. The conspicuous yellow flowers, small heads congregated in clusters, make up the prominent characteristics of the genus. Each little head, when examined closely, will be found to consist of tiny tubular or rayed flowers, a trait which marks it as a composite. And then you can notice that most of the Autumn flowers, asters, boneset etc., are also composites; but those in which yellow is the prevailing color, have as a rule a row of large rayed flowers around the margin, like the sunflower and coreopsis, which the goldenrods have not; so there is little trouble in identification.

It is well to add, however, that almost all of the late flowering composites produce honey or pollen, or both, in quantities which lure the bees. The tall growing iron-weed, with large heads of purple blossoms, is common in pastures and waste places. There are multitudes of asters; Britton describes over seventy, each of more or less honey value. These vary greatly in form, size and appearance, the rays being white, pink, purple or blue. Frost-weed and bee-weed are familiar names for some of the more common species. The pretty little coreopsis or tickseed sunflower of swampy places, the dandelion, succory or chicory, resembling a dandelion but with blue flowers, each have their attractions for the bees. The Spanish needles, the two-tined pitchforked seeds of which cling to the clothing of every one passing, is an excellent bee-plant. Even the vile ragweed offers pollen in liberal quantities. These and many more composites swell the material for making a living into late autumn days. Vervain, common by the roadsides, catnip, lady thumb and the various knotweeds each furnish their quota; the narrow-leaved plantain, a dooryard pest, is prolific of pollen. And the list might be greatly prolonged. We can rest assured that nature, if not thwarted, will furnish food for the bees until the air is too chill for them to garner it.

Harmonsburg, Pa.

* * *

AN AID IN SETTING FOUNDATION.

BY M. F. REEVE.

IN placing foundation on the wires in brood or half-depth frames, I find that the embedding can be done much better with the small toothed wheel, used for the purpose, by doing the rolling over a block or board covered with burlap. A piece of tapestry carpet reverse side up, would answer. This is much better than rolling on a board. I cut a board just big enough to fit in the inside dimensions of an empty frame and stretch the burlap over it, tacking around the edges with 2 or 4 oz. tacks; nail this board on a wider piece. After the foundation is secured in the slotted top-bar of the frame, the latter is placed over the "form" or block and the rolling done as usual.

The Bee-keeping World.

SWITZERLAND.

Now and then something is said about the blind apiarist of Switzerland. He is not only blind but also crippled. He is very poor and his bees furnish him the best part of his little income. His name is Benjamin Imseng. He lives in the little village of Saas Fee, Canton of Nalais, Switzerland, at an elevation of 5,904 ft. above the level of the sea. The climate at this height is very severe. The snow remains on the ground eight months of the year, and the temperature goes down frequently to 25 or 30° below zero. At that altitude the wax moths are unknown; that is one redeeming feature.

His method of finding the queen to be killed is quite peculiar. The hive is first removed to another stand, then a comb filled with syrup, is substituted for one of the side frames, from which the bees are shaken back in the hive. When the comb containing syrup is covered with bees, they are shaken off into the colony with which they are to be united, or in a hive on the old stand, if a new queen is to be introduced. The remaining combs are treated in like manner until the last one is reached, on which the queen will be found, as she avoids the syrup. At this point his blindness obliges him to kill all the bees on the last comb, to make sure of the queen.

He judges the amount gathered from day to day by means of a very primitive machine, with which he can nevertheless estimate weights as low as three or four ounces. A plank is balanced on a triangular edge. The hive is placed on one end of the plank and stones of known weight near the other end at a point which is as far from that end as half the width of the hive.

* * *

Mr. Ruffy is a queen-breeder and often sells nuclei with his queens. This, of course, curtails his supply of combs, and he has to fall back on some process to induce rapid comb building. One of these is to feed the bees the cappings of his extracted honey. He simply presses them into balls and places them in the hive above the brood-nest. It is necessary to use the cappings unwashed, otherwise they would not be noticed.

Frequently in reading foreign books and papers, we meet with the description of some implements or processes that seem at first very imperfect; but after examination we often find that they are well adapted to certain circumstances. The hives in use in Europe belong generally to one of two systems of construction. In one the frames are taken out from the top; in the other they are taken from the back of the hive, which forms a door adapted to that purpose. To us who always place the hives in the open ground, the idea of taking the frames from behind looks ridiculous and *would* be ridiculous, sure enough; but the majority of hives in Europe are yet kept in what is called in French "ruchers;" and the point to which I want to call the attention of the AMERICAN BEE-KEEPER readers is that a "rucher" is the best place for keeping bees that I know of. A rucher is not exactly a bee-house, it is rather a bee-shed. The front is formed of three or four strong shelves extending the whole length of the building. On these shelves are placed the hives. The first shelf is about eight or ten inches above the ground; the second high enough above the first to admit the hives between; the hives on the third (or fourth, if there are four) each nearer the roof. Between the shelves and the back of the building there is an alley or room four or five feet wide. The back and ends of the building are enclosed. A door is put at the most convenient place, generally at one end. A fair idea as to how a rucher looks can be had by looking at the engraving of Gravenhorst's apiary in the A B C of Bee-culture. Generally the shed faces the south or south-east. All the manipulations, all the work is done from the alley behind the hives, that is, from inside. Under such circumstances the taking out of the frames from behind instead of the tops of the hives is simply a necessity. As the inside of the rucher is comparatively dark, few bees get in, the work can be done without a veil and there is but little danger of robbing. The work can be done in rainy weather as well as in sunshine. That item alone would be invaluable to a queen-breeder. Then, it is more agreeable to work under a shed than exposed to the hot sun. The protection is an advantage to the hives themselves. The exposure to the rain and then to the hot sun is not calculated to make a hive or any other wood-work last forever. No trouble about covers warping or leaking; and it is undoubtedly an advantage to the bees. A mere box exposed to the excessive heat of the summer days, the coolness and dampness of the night, thoroughly soaked in rainy days, is not the most comfortable lodging that could be devised.

In the Summer the hives in the rucher are protected from the excessive heat; in the Winter they are sheltered against the high winds, the rain and snow, and are undoubtedly much more comfortable for their inhabitants. No need of the cellar. In the coldest parts of Europe all the packing done consists in putting straw between and above the hives and also behind the latter, kept in place by a few slats or any convenient arrangement. Somebody might ask, how about tiering up supers? Very little section-honey is raised, it is all extracted. The hives are either two-story, the upper one for surplus; or one-story with twenty or more tall frames (a dummy is used) something on the Long Idea hive. Sometimes straw hives or mere boxes.

ADRIAN GETAZ.

CUBA.

A clipping from a newspaper, printed in Spanish, sent us by Mr. Ramon Valdes, of Havana, gives a detailed list of all the bee-keepers and the number of colonies kept in the Province of Pinar del Rio, the total of which is as follows: Six foreigners (Americans), and 165 natives having 3,888 colonies in native or unimproved hives, and 1,123 improved or imported hives.

◆

Several Americans in Cuba have observed that bees in that country do not work with the vim of Northern bees; but, rather, like the people, appear to work from necessity instead of choice. The actuating motive, however, is unimportant so long as the surplus crop surpasses that secured in Northern latitudes.

◆

Dr. Viete, of Cienfuegos, made the publication office of THE BEE-KEEPER a pleasant call last month.

JAMAICA.

Being in the tropics, we have no winter, and some of our best honey is gathered during the months when bees at the North are under the snow or in the cellar. In November we have the beginning of the flow from the bellflower or "Christmas pop," as it is locally called, which is the same as the bellflower or Aguinaldo of Cuba, and it lasts through into January, when we get, as a rule, about two weeks heavy flow of logwood. The bellflower flow comes on gradually through November thus giving the apiarist a chance to build up all colonies so they can secure a goodly surplus from bellflower, but be "boiling" with bees when logwood opens up its myriad blooms in January. Bellflower is not found in all parts of the Island; but nowhere more plentifully than in the district surrounding my own locality. The bellflower is a member of the morningglory family, and is certainly the most floriferous member, as when in full bloom in December the vines are a mass of white flowers every morning. The bees begin work at daylight or even a wee bit before, and for several hours the bees do a roaring business that gladdens the heart of the apiarist. The flowers not only yield honey, but the bees come in looking like they had just come from a flour barrel, for they are dusted all over with the white pollen; it even interferes with their sight by getting into their eyes so that they often miss the entrance and light on the ground or grass and rub the pollen from their eyes before being able to "see straight." When the "rush" is on, the bees do not bother to bring in much pollen, except on their backs; but as the flow slacks up for the day, they bring it in freely. By ten o'clock, as a rule, the flow is over for the day, and they have nothing to do until the next morning, and as a consequence I have known them to work like beavers in the morning and rob in the afternoon. As this flow comes during our cool weather, the brood-nest is almost sure to be clogged with honey, unless at the beginning of the flow the apiarist has watched all colonies closely and given the queen ample room. It is also best to have a young and vigorous queen of good working strain; and if the hive is snug and warm as it should be, the brood nest will not need to be touched, as a rule, after the first two weeks of the bellflower flow, although some colonies will occasionally persist in keeping the brood-chamber filled with honey, in which case I put a frame of foundation into the center of the brood-nest every few days and lift the heaviest combs into the super and bees will soon set to in the super and give the queen a chance to do her share of the work properly, which is very essential if we are to harvest all we should from the logwood bloom. And this is why it is so essential that we have vigorous young queens as we cannot afford the time taken to supersede an old queen just before the honey harvest. Our apiarists are awakening to the necessity of having the very best quality of queens; and we are offered daughters of "Root's $200," "Doolittle's best" etc., by our local breeders. Verily, we are up to date! I don't want a guarantee of length of tongue, but queens from a breeder that *breeds* and breeds for *business*. At the same time we would welcome bees with longer tongues, if they were an inch longer, for then bees could work on bananas that are in bloom the year round, and yield a bountiful flow of nectar; but as the tubes are about one and a quarter inches in depth, bees have to fight for the occasional drop that runs down to where they can get at it. Red clover isn't in it with bananas in yield of nectar—or in length of floral tubes. But I fear it will be a long time before tongues are stretched to the requirements of the banana. "ENTERPRISE."

GERMANY.

Editor Reidenbach recommends in the *Phalzer Bienen Zeitung* as a remedy for foul-brood the use of either formic acid, thyme oil or formaldehyde. The hive should be burned out with a fire of straw and the wax and honey boiled for three hours. He deems it best to add a 5 per cent. salecylic acid solution while the honey is boiling.

◆

Lipps says in the same paper that he has come to the conclusion the proper time to raise queens is during June and July while the honey-flow is on. He thinks the work is much pleasanter during such a time and feeding has not to be resorted to, while the queens raised prove more prolific and longer lived, as a general thing.

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According to Fetteroll, in the *Phaelzer BienenZeitung*, a queen may be safely introduced as follows: "Remove the old queen and substitute the new one in a wire-cloth cage. After twenty-four hours give access to the opening of the cage, closed with good candy. Wait one week, then look for brood." [This method works well during the time when honey is coming in, and during the Spring months. If there is a wood stopper in the cage, be sure and have the hole through it large enough. I have had trouble in queens not coming out of cage, and I found them still in the cage at the end of the week.—F. G.]

◆

Reidenbach goes Root one better. Root sells his queens according to the length of tongue; Reidenbach according to their weight. The latter has a pair of very sensitive scales and every queen is carefully weighed. The heaviest are marked at fancy prices—perhaps $200 each, I do not know.

On these same scales thirty drone eggs were weighed; they weighed 5 milligrams; worker eggs the same.

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According to statistics, the number of colonies kept in Germany has decreased by 300,000 during the last twenty years.

◆

The largest apiaries kept in Germany comprise 451, 380, 300, 285, 210, 170 and 150 colonies respectively.

◆

In order that a bee may fly she must move her wings very rapidly; so rapidly, indeed, that they become invisible to the eye. It has been figured out by a German scientist that the number of strokes maintained by a flying bee are 440 to the second.

◆

The average German bee-keeper cannot understand how it is possible that bees can be handled as rapidly and easily as is reported in American bee-journals. One American bee-keeper and queen-breeder was recently very severely criticised on account of telling such "awful" yarns about his queen-rearing methods. The reason why the German bee-keepers are disinclined to believe our reports or statements lies in the fact that the hives they themselves use are constructed so as to make the handling of the bees about as inconvenient and complicated as possible; at least I cannot imagine how better a hive could be constructed to make it more inconvenient. With such hives it would indeed be very difficult to go through with such operations as even a novice here would not hesitate to undertake.

◆

Many of the German bee-keepers report a good honey season. Gerstung thinks his hive (size of frame principally) is in a great measure responsible for the high yields obtained. It is said one hundred pounds have been harvested from single colonies.

◆

Rojina, of Carniola, has come to the conclusion that the cause of young swarms leaving their hive after being hived is because the bees have not taken a full load of honey with them. When, for some reason, a scant supply is taken along, they are very apt to leave. Whether the bees have their sacs full he can easily tell by their general appearance; if they have a short supply he gives them a comb of brood and honey at hiving time, and thus prevents their absconding.

◆

A patent has been applied for by Rave in Ostrum to produce honey by feeding sugar to bees. The bee-keepers have raised serious objections; the patent has not been granted.—*Schleswig Holstein Bienen Zeitung.*

◆

A large portion of the drones in a colony of bees found by Runk in Grosssteinhausen possess white eyes. Berlepsch and Vogel have spoken of such bees. It it said they are blind.—*Phælzer Bienen Zeitung.*

◆

The *Bohemian Bienen Vater* gives a receipe for discovering adulteration in honey as follows: Mix a small quantity of honey with alcohol and shake well. Let stand a short time. If adulterated, the mixture will show a white sediment.

◆

From *Bienen Vater*, Wien, Austria, accorning to Dr. Pachner, one thousand drones use up at least 115 grains honey daily. Three thousand drones is no uncommon thing in one hive. They would use in five weeks about twenty-five pounds of honey. Instead of three thousand drones ten thousand workers might have been raised which would not only have saved the twenty-five pounds of honey, but would have gathered quite a little surplus besides.

◆

Horvat has found that the pulverized refuse of carbide lamps (acetylene gas lamps) answers better than any other available substance for driving away ants.

SAMOA.

In *Deutsche Illustr. Bienen Zeitung*, Hufnagel says he imported the first honey-bees into that Island in 1885 for the purpose of fertilizing pumpkin, melon and cucumber blossoms. It seems the cucumber growers had to, and did employ women help to transfer the pollen from the male to the female blossoms. This is not necessary now to secure the setting of the fruit and, of course, the credit belongs to the bees.

CHINA.

When a Chinese bee-keeper builds a new house the wall is so laid as to form a number of excavations two feet high by one foot wide and about three feet above the ground. They are expected to answer as habitations for bees. The openings are closed up with willow-work coated with clay. Only a very small entrance is left for the bees to go in and out. F. GREINER.

◆

Books should to one of these four ends conduce:
For wisdom, piety, delight or use.—Denham.

Bees in a Belfry Cause Trouble.

Laurel, Del., Aug. 4.—Edward Hopkins, sixty years old, sexton of Colfax Chapel. Accomac County, is at the point of death from bee stings, and the village is in a turmoil over his strange case. This morning the chapel bell refused to sound when he pulled the rope, and Hopkins climbed the ladder to the belfry to investigate. In the lofty tower, at the top of a twenty-foot ladder, he was set upon by a swarm of angry bees that had taken possession of the belfry tower and were disturbed by his vigorous pulling of the bell-rope.

In his haste to escape the bees, Hopkins missed the ladder and fell to the timbers of the tower belfry sustaining serious injuries which, together with the poison injected by the stings of the bees, make his case hopeless. The villagers fumigated the belfry, drove out the bees and secured a large quantity of honey from inside the chapel bell. —*Phila. Ledger.*

BEE-KEEPING AS A SIDE ISSUE,

Or a Back-yard Industry — Beginners' Lesson No. 3.

BY F. G. HERMAN.

IT is easy to move and to handle bees when you know how; but it is the prospect of learning that frightens many people away from bee-keeping. Undoubtedly a bee-keeper often gets stung: it is useless to deny it. It is scarcely consoling to tell a novice that in time he will grow used to being stung: but after a time a bee-keeper does really become inoculated, after which, although the momentary pain may be sharp, there are no disagreeable after effects such as swelling etc. I myself thought very seriously of having to give up the pursuit after one or two years' experience, for the bees insisted upon stinging me several times in the same spot on the wrist. I carried about a swollen arm for over a week: but it soon wore away and I was troubled no more with bad effects. In fact, I now consider bee stings in moderation good and stimulative, for the bees certainly do insert some of their snap and energy into their keeper. Of course, when handling bees I wear a veil over my face, and have them always ready for visitors to my apiary; but I never protect my hands with gloves excepting when I go to my out-apiary, which consists of nearly all black and hybrid bees, some of which are in a house, and are sometimes unusually cross, probably made so by the boys throwing stones at the hives.

But examining the hives and removing the frames would not be so simple a matter were it not for another implement of the bee-keepers' trade, namely, the smoker. The apiarist would have a distinctly bad quarter of an hour at the hands, or rather, at the stings of his bees if, before beginning his pilferings, he did not send a preliminary puff of smoke from his bellows into the hive. This alarms the bees and causes them to fill themselves full of honey, for the bee is such a miser that her instinct for saving her horde is stronger than even that of self preservation. It has been found that when bees are full of honey they do not use their stings so freely as at other times, and so the bee-keeper can with perfect security lift out the frame from which they are hanging in great clusters, brush them into the hive and make off with the honey.

MR. F. G. HERMAN.

One day, while working in the apiary, a gentleman was watching me. He was curious to know how I managed to get the honey from the hives: said it must be at night when all the bees are asleep. This, of course, would be the very worst time of all, as bees know nothing about sleep, but labor twenty-four hours a day; for there is plenty of work to be done inside of the hive at night, such as evaporating honey, comb building, etc. It is the custom of the bee-keepers generally to select warm and clear days in which to perform the operations of the hive. The older bees which constitute the field force are out then in quest of nectar and pollen, and the manipulations are more easily performed. Bees that are swarming or those which are out in the fields gathering nectar and pollen, very seldom volunteer an attack. Of course, a bee-hive should not be pulled apart every few days from mere curiosity; but examine only occasionally to ascertain their progress. Bees should be handled very gently, for they seem to dislike quick and jerky movements; and are naturally cross on rainy days. It is wise at such times to let their hives alone.

Englewood, N. J.

* * *

Discretion is the perfection of reason and a guide to us in all the duties of life. It is only found in men of sound sense and good understanding.—Bruyere.

* * *

OUR
CORRESPONDENTS

Cuba, N. Y., Aug. 9, 1901.

Editor BEE-KEEPER, Dear Sir: August BEE-KEEPER has just arrived, and I hasten to point out where you misquoted me on page 162. You say "Mr. Simpson thinks a college education a pre-requisite to successful queen-breeding." I said, "Mr. A. C. Miller, in May 1st *Gleanings*, might well make his requirements for a successful queen-bee breeder more complete by adding a college education as another requisite." Mr. Miller has said in substance that unless the queen-rearer can become an enthusiatic and deep student of biology he had better drop queen-breeding. I thought that with the desire and attainments which would make biology of such interest, a college education might be equally desirable; but whereas Mr. Miller predicted failure for all those who did not possess this knowledge and enthusiasm, I, on the other hand, recognized the value of such favorable attainments, but at the same time distinctly stated that I did not consider them necessary, but that I thought that the practical man who does not possess these qualifications, could obtain great results by the aid of the student who is "strong on theory but in many cases prevented from being broadly practical (on a large scale) by reason of occupation or circumstances." When we find colonies of black bees with just the faintest sign of one yellow band, just enough to show that they are not even pure black, but mongrel, doing equal work and showing equal results in comparison with colonies of pure Italians, of the best strain, produced by careful selection for thirty years, it is evident that the survival of the fittest in nature seems on a par with, if not superior to, all that man has done in the way of breeding bees; and unless we can make a very great advance in bee-breeding, we had better not try to control mating or drone-rearing, but merely let nature do it all. As near as I am able to judge, the great majority of queen-rearers are not possessed with the requisites stated by Mr. Miller, and I believe they are incapable of making the necessary advance without the aid of some who are especially fitted to assist them. I would have greatly preferred that some one of greater experience in apiculture should start the discussion; but as no one seemed willing, I am endeavoring, in a series of articles, to show several very grave errors which are being continually advocated by our highest authorities, and I am also endeavoring to make contributions looking toward a systematic method of breeding, which, though necessarily theoretical, seems logical to me, and I am giving it to the public before I try it, because I am convinced that some of the principles involved will prove helpful to others; and it is only by free discussion and by the experiments of many that so broad a subject can ever receive its proper attention.

I wish you would read over Mr. Miller's article in May 1st *Gleanings*, and also the first paragraph of my article and notice how you misquoted me, as it should be corrected. Very truly yours,

FREDERICK B. SIMPSON.

[We hardly think Mr. Simpson intended to accuse us of so dishonorable an act as to misquote, though he pointedly says we did it. The fact is, we did not quote him at all in the objectionable paragraph. We were, doubtless, guilty of misconstruing his language; but we trust this is a pardonable offence.—EDITOR.]

Editor BEE-KEEPER: The practical confession of Deacon Hardscrabble, in

September Bee-keeper, that he is moved to labor for the cause through a deep regard for the editor's check, is not altogether a surprise. I have always flattered myself I could discriminate between the children of penury and those of a generous, philanthropic spirit. I wonder if the Deacon is attracted by a similar agency to his other official duties. The man who writes only for money is a twin-brother to him who will preach the gospel only when paid in cash for the service, and an own cousin to the curbstone politician. The bee business needs some things pretty bad just at present; but it isn't more of that class of writers who put their hand to the pen with itching palms, for the paltry returns from the printer. Dr. Johnson, whoever he may be—and the Deacon, ought to be put in the ice-box, where the temperature will correspond with that of their respective hearts. The latter's rigid policy does not accord with the fellow-feeling of the present among bee-keepers.

Yours truly, A. Q. Cumber.

* * *

There is no readier way for a man to bring his own worth into question than by endeavoring to detract from the worth of other men.—Tillotson.

* * *

Lime Honey the Best in the World.

The "tree of a thousand uses," as the lime has been called, was formerly planted tn England much more than it is to-day. The little row of pollard limes in front of the old farm house or the substantial thatched cottage is still a familiar sight of unspoiled South country villages, while avenues of tall and ancient limes are very pleasant features of some of the large country houses, the manor houses in particular. It is claimed that the best honey in the world is made from the limes. Kowno honey is said to be made from no other flower. It is of a greenish hue. In Lithuania there are forests of lime trees and the honey made there is particularly fine.—*London Express.*

* * *

The largest beehive in the West is claimed by Lexington, Ill. In the long bridge of the Alton Railroad over the Mackinaw River, a great colony of the insects have established quarters. The hive is in the main span, which is 120 feet long and the stretch of comb is fully that length.—*Baltimore American.*

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Everything appearing in The Bee-keeper should be read; but the wrapper should never be red.

Send in your report of the season's operations. Let us know what you have accomplished, and how you did it. Valuable ideas will be imparted and received in this way.

A good rucher is said to be one of the most satisfactory things of which an apiarist may become possessed. You don't know what it is? Mr. Getaz tells all about it under the Switzerland heading in this number.

Dr. Miller, in *Gleanings*, asserts a suspicion that the advantages of having but few bees in fertilizing nuclei are somewhat fanciful. Modesty is one of the Doctor's distinguishing traits, and in this instance the virtue stands in such bold relief as to almost defeat itself.

There is something about the duties of the Northern apiarist in the Fall months, as he tucks away his companions of the long and active Summer for their Winter's rest, which borders on solemnity; yet there is that grand awakening of nature a few months hence to which he may look forward, entirely unknown to those of the South—Spring.

The chief occupation of the Northern bee this month will be to daub everything accessible with propolis and soiled particles of wax, as if to make the interior of its home correspond with the gloomy appearance of things without Occasional walks to the entrance to survey the sombre clouds are indulged in when a relaxation of October's chilly winds will permit; while the restless movements and antennal gestures seems to indicate a degree of anxious suspense as to whether it is to be subjected to a burial beneath promised snow or consigned, with the turnips and pumpkins, to the cellar. Verily, its lot is one calculated to elicit the sympathy and tender care of the worthy master.

Mr. Harry S. Howe, in *Gleanings*, reports the present price of honey in Cuba about 2 4-5th cents a pound, while wax is worth about 27 cents. As a matter of course the question of turning his honey into wax becomes a source of mental agitation. It will now be in order for Mr. Hasty to publicly attribute Mr. Howe's genius to imperfectly balanced "wheels," or a visionary disposition, as was his wont years ago when an effort was being made by some to explain the possible business opportunities afforded in certain parts of Mexico and Cuba by the same project. It is to be hoped that Mr. Howe will pursue the scheme until the extent of its capabilities have been determined. It has every appearance of being worthy of the effort.

Mr. Harry S. Howe, under the heading, "Something about the Most Extensive Bee-keeper in the World," in *Gleanings*, discusses the movements of Mr. W. L. Coggshall of New York State. In regard to out-apiaries it is there stated: "He now has them in Wisconsin, New Mexico and Cuba, besides seventeen or twenty in New York. It is said that he also has his eye on the Phillipines, and is planning a system to keep the boys extracting the year around." For those who regard bee-keeping as having reached its limit and consequently depreciate and discourage all efforts towards increasing and improving our apicultural literature, there may be some surprises in store. It already begins to look as if Mr. Coggshall had determined that the sun must not set upon his extracting crews. More Coggshalls is the one thing of which the operative branch stands most in need at this time. Success to his enterprise!

There has for some time been an absorbing controversy between the pear-growers and bee-keepers of Tulare County, California, in the vicinity of Hanford. It has been charged by the former that the bees are responsible for the spreading of a disease known as pear blight. Early in the season it appeared that the affair might result in a very unpleasant condition, expression of unkind thoughts having been permitted. In order that the extent of the bees' responsibility might be definitely fixed, the apiarists of that section have joined in a project to remove their apiaries beyond the reach of the pear-growing section during the season of bloom. President E. R. Root, of the National Bee-keepers' Association, during his recent trip westward, visited the scene of conflicting interests (or opinions), and was largely instrumental in effecting the adjustment by which the dispute will not only be settled without recourse to law, but through which invaluable knowledge will be gained. Through President Root's efforts in behalf of an impartial investigation of the subject, the interest of the U. S. Department of Agriculture has been elicited to the extent of an assurance that it will keep tab on proceedings. The averting of unpleasant legal contention in this way has a tendency to make one quite satisfied with his chronological position. In dealing with minds actuated by an appreciative sense of common justice, there is no need of lawyers or militia. It is a pleasing sign of times approaching. In this instance the very conditions which gave promise of trouble, are now conspiring to yield invaluable knowledge which shall be the heritage of posterity.

MR. HERMAN AND HIS TEACHINGS.

Mr. F. G. Herman, whose picture is shown in this number of THE BEE-KEEPER, came to the United States about forty-two years ago. He is a native of New Jersey, having been born within a half mile of his present home. His occupation has always been that of a cloth finisher, in a factory where lint and dust abounds. About ten years ago he undertook bee-keeping as a sort of recreation during his leisure hours, beginning with one colony in a box hive. This work he has found a pleasant contrast from that of his vocation, being a lover of pure air and sunshine; and he has succeeded, as his lessons to beginners attest. Since his second year's experience, his smallest yield has been twenty-five pounds of surplus per colony, Spring count; his largest one hundred pounds. Mr. Herman now has one hundred colonies in two apiaries.

In this connection we might note that the editor of the *American Bee Journal*, who, by the way, is an adept at figures, has given Mr. Herman's lessons in these columns considerable notice, paying especial attention to his August article. We quote:

"Let us figure upon this basis and see what Mr. Herman's income should be in five years from now. As the number of colonies doubles each year, his present sixty will in five years increase to 1920, and as each of these 'should bring in at least five dollars,' his income will be $9,600, and in ten years from now it will be $307,200." The *Journal* editor then modestly presumes, the occurence of ten good seasons, during which the harvest will be ten times greater than in the poor seasons of which Mr. Herman writes, and has calculated that Mr. Herman's income in that time would reach a round three millions, to say nothing of the $72,000 loose change. Our esteemed contemporary further intimates that J. Pierpont Morgan might as well have been a wealthy man to-day had he only held aloof from dabbling in such small things as bonds, railroads, steel etc., and embarked instead in the bee business.

There can be no doubt that the glowing pictures sometimes painted of bee culture and its profits are open to criticism. The beginner—especially the youthful beginner—may in this way be led to expect too much; yet, with reference to question in hand, we think no bee-keeper of experience would be inclined to regard $5.00 per colony as big returns. It should always be borne in mind that any business enterprise is subject to adverse conditions and casualties. Then, there is the limit of one's personal capabilities to be taken into consideration. One apiarist cannot properly attend to several apiaries; expense increases in proportion with the stock; forage must also be afforded in equal ratio. One colony might easily produce one hundred pounds of comb honey. This might readily find a market at $16.00; though one does not often hear of an apiary of one hundred colonies yielding ten thousand pounds of honey, and that selling for $1,600. We do not think it has occurred in recent years that any apiaries of one thousand colonies have yielded sixteen thousand dollar's worth of honey in one season, for reasons intimated above.

There is no doubt that Mr. Herman, as fully as his critics, understands and appreciates these facts, and there is no doubt that he would have sought to qualify this particular sentence had he anticipated the inclination of any one to advance the stock of the Joseph Dixon Crucible Company through his consumption of lead pencils in extending the appplication *ad infinitum.*

Prof. Cook, in his "Manual of the Apiary" says: "An intelligent apiarist may invest in bees any Spring, in Michigan, with an absolute certainty of more than doubling his investment the first season; while a net gain of 400 per cent. brings no surprise to the experienced apiarists of our State. This, of course, applies to only a limited number of colonies. Nor is Michigan superior to other States as a location for the apiarist." In these days of gigantic enterprises, the professor's qualifying clause is next to insignificant, for even the operations of Morgan are "limited." Hence, it would be no less consistent to suppose that one might with absolute certainty invest one thousand dollars in bees in Michigan or "other States" next Spring, and each Spring thereafter for ten years, invest the minimum limit of his apiarian funds in bees, thus giving him an income of a million for the tenth year, "to say nothing of" $24,000 in "loose change."

It is highly improbable that any man has ever realized from his bees in one season a sum of money approaching the amount of this "loose change" which, according to the *Journal's* system of overhauling a chain, any intelligent person might be led to regard as a failure, if he should base his project upon so careful a writer as Cook.

"There is reason in all things but one," used to be a favorite saying of a venerable associate of our boyhood days. The "one" exception was a great mystery.

◆

All human history attests
That happiness for man — the hungry sinner—
Since Eve ate apples, must depend on dinner. —Byron.

LITERARY NOTES.

At a time when all the world is asking, "What manner of man is our new President?" Modern Culture reprints in the October number an article entitled "Theodore Roosevelt—The Typical Man of the Twentieth Century," by Day Allen Willey. Of this article the President himself has written: "I have so genuinely liked that article of yours about me that appeared in Modern Culture, that I must send you a line to tell you so. You have recognized what I was trying to be and to do—no matter how far I have come short in both respects. Let me thank you heartily. Theodore Roosevelt."

It was announced several months ago that the editor of The Ladies' Home Journal contemplated making some sweeping changes in his editorial staff. Up to the present time ten new editors have been added to Mr. Bok's corps, and fifteen new departments planned for The Journal, a majority of which make their initial appearance in the October number.

"The Epicures Map of Europe" is the first article of a series describing the good-liver's tour of Europe. "For him Europe is no silly checkerboard of battles, churches, operas, museums or flirtations. It is studded with sauces, soups, salads, and so on, into entrancing infinity."—Adelaide Keen in October What to Eat.

Honey and Beeswax Market.

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel-stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

BUFFALO, Sept. 20—Honey is in moderate demand with moderate supply. Price of fancy comb, 15 @ 16c. Extracted, 5 @ 7c. Beeswax is in good demand with light supply. Fancy, 27 @ 28c.; dark, 22 @ 25c. Demand will be light until in October, then liberal amounts can be sold.

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NEW YORK, Sept. 21.—Arrivals of comb honey are coming in freely, and in fair quantities. We quote as follows: Fancy white, 14 @ 15c.; No. 1, 13 @ 14c.; No. 2, 12c. No buckwheat has arrived as yet; but we expect some shortly. Extracted is rather dull, and is bringing 4½ @ 6c., according to quality. But little demand for beeswax, at 27½c. per pound. FRANCIS H. LEGGETT & CO.

KANSAS CITY, Mo., Sep. 20—Our present demand for honey is fair with good supply. White comb sells at 14c.; amber 12½c. Extracted 6 @ 7½. We have a good demand for beeswax with light supply at 30c. Supply of comb honey is large and market one to two cents a frame lower.

HAMBLIN & SAPPINGTON.

CHICAGO, Sept. 18, 1901.—Number 1 white comb honey is selling at 15c. per pound with occasionally a little more being obtained for fancy; that which does not grade No. 1, selling at from 13 @ 14 cents, with light amber at 12 @ 13c.; dark honey of various kinds selling at 10 @ 11c. Extracted in moderate demand at from 5½ to 6½c. for the various grades of white, some fancy white clover and basswood bringing 7c.; light amber ranging from 5¼ @ 5¾c.; dark at 5 @ 5¼c. Beeswax firm at 28 @ 30c.

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A. B. HULIT, Editor.

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> Some little time ago I promised to tell about the bee-keepers' paradises in Texas. I have this on the docket, and it will appear as I take up the line of my travels. But since running across that paradise I have run into two or three others. There is one West of the Rockies, in Colorado, that is not yet overstocked with bees or bee-keepers; another one in central Idaho—in fact, I do not know but the whole State. These will be described in turn. The fact is, millions of capital are being invested in irrigation; irrigation means alfalfa; alfalfa means a paradise for bees. But I found all along my trip that alfalfa-growing preceded bee-keeping by two or three years, for it seems to take about that length of time before the bee-keepers find these gold mines that have been hitherto unoccupied.

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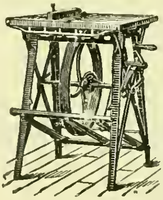

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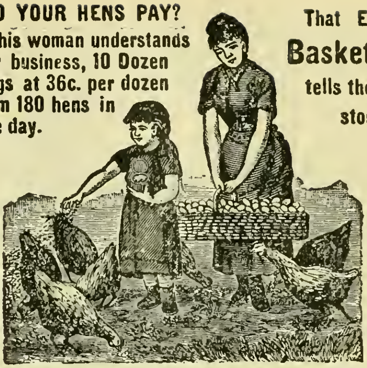

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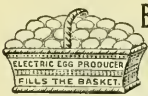

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THE ROYAL TEMPLARS have placed their system of protection on a foundation so broad and deep that it shall stand long after all other systems have passed away and are forgotten, and will insure the widow and orphan the fulfillment of the provision made to secure them from the cold blasts of want by the loving forethought of the husband and father, who has been removed by the hand of death.

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When you invest a dollar for advertising space in

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POULTRY POINTERS Office.
5tf 306 West Main Street, Ionia, Mich.

The Record.

The Oldest and Leading Belgian Hare Journal of America and England.

R. J. Finley, Editor and Publisher,

The only journal having an English Belgian Hare Department.

One copy worth the yearly subscription.

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I am overstocked with hives. Will sell two thousand at

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Ask for prices and say how many you want. Can ship at once.

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Still 10c. a Year.

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is a large 16 page, 64 column magazine, published monthly at twenty-five cents a year, and if interested in this new and popular industry you certainly should subscribe.

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Ruth's Belgian Hare Directory, price 10 cts. The Advocate one year and Directory for only 30 cts.

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It is gradually brought to light that the Civil war has made great changes, freed the slaves, and in consequence has made the large land owners poor and finally freed the land from the original owners who would not sell until they were compelled to do so. There are some of the finest lands in the market at very low prices, lands that produce all kinds of crops, grasses, fruits, and berries; fine for stock. You find green truck patches, such as cabbage, turnips, lettuce, kale, spinach, etc., growing all the winter. The climate is the best all the year around to be found, not too cold nor too warm. Good water. Healthy. Railroads running in every direction. If you desire to know all about Virginia send 10c. for three months subscription of the VIRGINIA FARMER to Farmer Co., Emporia, Va.

There is no trade or profession better catered to by good journals than that of the farmer. Unintelligent unprogressiveness has now no excuse.

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Popular Science News,

Instructive. Of great value to teachers, and persons engaged in educational work. Interesting.

To further introduce this magazine, and to induce many to subscribe who are not now readers of POPULAR SCIENCE NEWS, the publishers have secured special terms whereby they are enabled to make the following SPECIAL COMBINATION OFFER for the Summer months:

POPULAR SCIENCE NEWS [new] six months	$0 80	All Four for $1.68.
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SUCCESS [new or renewal] " "	0 50	
THE AMERICAN BEE-KEEPER [new] " "	0 25	
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		$5 60	

Subscriptions may be sent to one or different addresses. Subscriptions to the Review of Reviews, Popular Science News and The American Bee-keeper must be new, but subscriptions to Success may be either new or renewal. Whenever possible remittances should be made by check or money order payable to Popular Science News. If money is sent the coin should be gummed to a piece of cardboard before placing in envelope, to insure safety. Foreign postage extra. Address all communications to

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Bee-keepers who also raise Poultry should not fail to read

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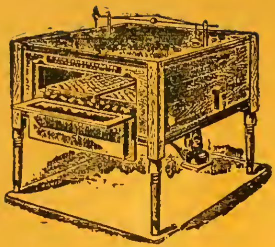

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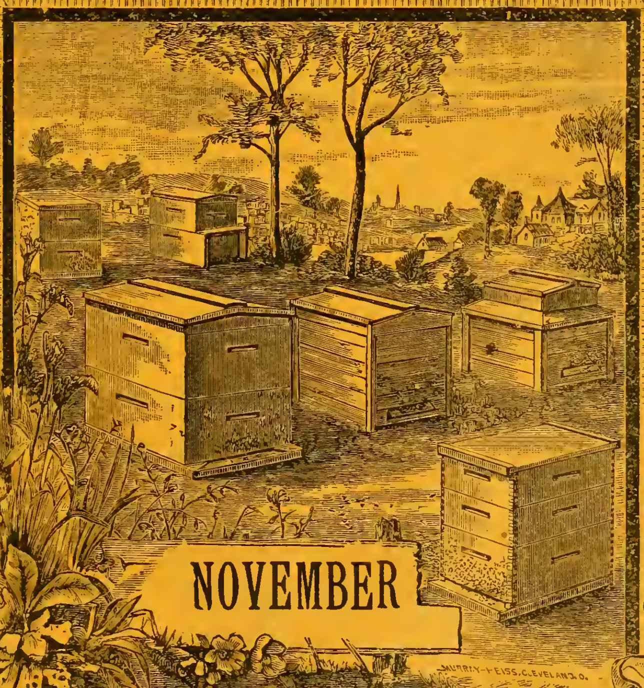
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NOVEMBER

1901

Vol. XI No. 11

Entered at the Postoffice, Falconer, N.Y., as second-class matter.

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THE ROYAL TEMPLARS have placed their system of protection on a foundation so broad and deep that it shall stand long after all other systems have passed away and are forgotten, and will insure the widow and orphan the fulfillment of the provision made to secure them from the cold blasts of want by the loving forethought of the husband and father, who has been removed by the hand of death.

What it Provides.

All the social enjoyments of a Grand Fraternity.

All the financial protection of a powerful Life Insurance Corporation.

Aid to the bereaved family in making prompt payment of every just claim. tf

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at our special rate, it is just like dropping a dollar where you can pick up **TWO.** Write at once for sample copy, special rates and full particulars to

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The Record.

The Oldest and Leading Belgian Hare Journal of America and England.

R. J. FINLEY, Editor and Publisher,

The only journal having an English Belgian Hare Department.

One copy worth the yearly subscription.

If interested, don't fail to send 2-cent stamp for sample copy at once. Address,

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Overstocked with Bee Hives!

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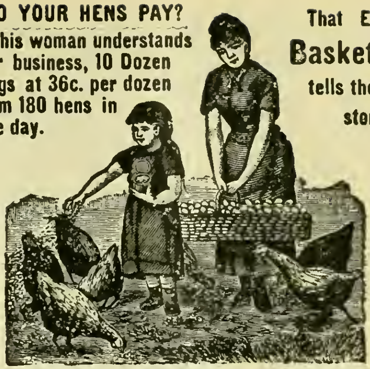

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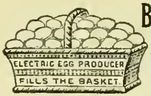

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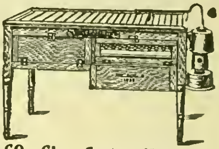

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THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI NOVEMBER, 1901 No. 11

BEGINNERS' LESSON. NO. 4.

BY F. G. HERMAN.

MODERN invention has also hit upon a device to control the swarming of bees, which is rapidly superseding the old device of a bushel basket fastened to a pole, or a bag hung on a pronged stick, which are still used when the bees fly out of the hive and alight in the tree, accompanied by the queen. The new method is based upon the very old knowledge that the bees will not go off without their queen; and the invention is a contrivance made of wood and zinc which is affixed to the entrance of the hive. This device is full of holes large enough to let the worker bees go in and out: but too small to permit the queen, who is considerable larger than the worker bees, to pass out.

When swarming time approaches the bee-keeper simply claps this queen-trap over the entrance of the hive, the workers rush out through the perforations; but the queen finds herself a prisoner. The bee-keeper then sets a new hive on the old stand, puts the queen inside, and when the workers come back to look for her, they find her still doing business at the old stand, but in a brand new house, of which they willingly take possession. The same object is attained by clipping one side of the queen's wings, which disables her from flying with the swarm. It is the custom among experts to practice clipping, but the novice will succeed better with the queen trap.

The swarming time is not only one of great anxiety to the bee-keeper, but also of intense interest and pleasure; and the sooner this exodus takes place the better for the bees and the bee-keeper as well. Whenever the bees deem it necessary they enlarge an ordinary worker cell in the brood combs into a queen cell and feed the inmate with an especially prepared food, commonly called royal jelly, so that in sixteen or seventeen days a new queen is ready to make her bow to the world. She would never make it, however, if the old queen had her way about it. A colony may have only one queen at a time and whem the old queen sees that the workers are beginning to build queen cells, she makes vigorous efforts to get at them and destroy her coming rivals. It is for this purpose that she has been provided by nature with a sting, and she never uses it on a human being; only on rival queens. The sting of an ordinary bee is barbed, so that if she once inserts it in a person she cannot draw it out again, but must pay with her own life the penalty of her vengeance. As the queen's life, however, is too valuable to be easily lost, nature has provided her with a sting that is barbless, so that she may use it as often as she chooses without paying for her temper with her life; or rather, as often as the workers choose, for they stand guard and do not allow her to come near the queen-cells, which causes her to sulk and wish for a new home. A week or so before a young queen is to be hatched out, the swarming note is given, when the old queen with the greater part of the colony, after they have filled themselves with honey, fly forth to seek a new home, leaving the old hive to the new queen, who will soon emerge from her cell and go about her business of repopulating the hive. It is sometimes desirable to prevent swarming and keep the whole force of bees together storing honey, in which case the queen-cells can be cut out every week or so. As the cells are very often built on the lower ledge of the comb, they can be seen by looking at the under side of the hive. If the bees cover them too thickly they can be dispersed with a little smoke.

Englewood, N. J.

* * *

There is not a moment without some duty.—Cicero.

* * *

BEE-KEEPING ON NEWSPAPER BUILDING.

BY M. F. REEVE.

THERE has been a colony of bees on a ledge outside of a fourth story window of the *Public Ledger* building, Philadelphia, for six seasons past. It is the property of Mrs. E. S. Starr, who edits "Farm and Garden," "Bee-keeping," "Dairying," "Horticulture" and columns on kindred topics for the *Ledger*. The bees are in a dovetailed hive and are apparently as much at home as if they were on the street level; in fact, more so. Their field is in the adjacent public squares, Independence and Washington, with probable side trips to the nearby candy factories. The original colony did not survive the first winter and new tenants were put into the hive, and each year since a surplus has been received. Mrs. Starr says that at first her surplus had a variety of flavors, such as lemon, peppermint, sassafras etc.; but that since the candy men have put wire screens on their windows and shut out the winged depredators, the returns from maple, sycamore, tulip poplar and basswood trees of the public squares, the Pennsylvania Hospital grounds and the churchyards, have been more satisfactory. One year there was a bright red streak with raspberry flavor, suggesting that the busy marauders had found somedody's jelly put out to cool and had cleaned it up. This year the hive body store combs are expected to yield twenty-five pounds to the extractor. What will be taken from the supers will be fed back for winter and the comb melted for its wax.

The experiment is regarded as demonstrating that a family with a house on a city street and no dooryard, can keep bees on a roof, and without any expense save a little attention, have a harvest of honey sufficient for the family and possibly some over for friendly neighbors. There are, in fact, several Philadelphia bee-keepers who have house-top apiaries.

Mrs. Starr prevents swarming by removing a few frames with adhering bees to an apiary on her farm, near Sea Isle City, N. Y., where she has ten colonies, all Italians, whenever "the house gets crowded." She replaces the absent frames with others filled with foundation.

Rutledge, Pa.

* * *

Dispatch is the soul of business.
—Chesterfield.

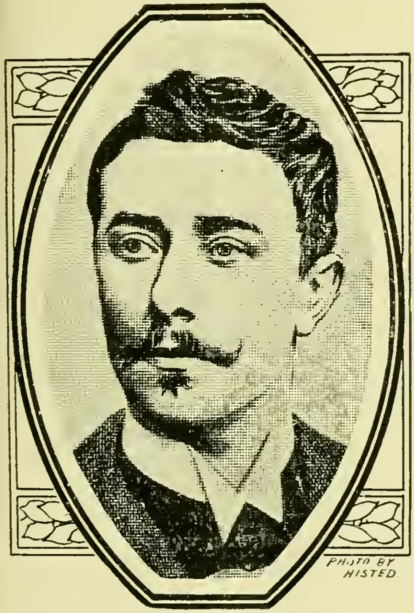
* * *

"THE LIFE OF THE BEE."

RECENT additions to the bee-keepers' library have been few, but the advent of Maeterlinck's new volume, "The Life of the Bee," fully compensates the patient waiting. It is not a technical treatise, though the author displays a remarkable familiarity with the bee and its characteristics. While it is a work of especial interest to the bee-keeper, Maeterlinck's peculiar and exceedingly broad treatment of his subject appeals forcibly to every student of nature.

Hardly less interesting than the book itself, which is published by Dodd, Mead & Co., N. Y., is the Philadelphia *North American*'s review of the work, which we give in part, as follows, and to whom we are indebted for the accompanying picture of the author:

"Maurice Maeterlinck takes us to the school of the bees and shows us how to obtain there deep draughts of the honey of a wholesome philosphy, which, after all, is a liberal recognition of our own ignorance. He makes upon 'The Life of the Bee' a candid disquisition, bringing into relation with his subject the profoundest problems of nature and the gravest postulates of metaphyics.



MAURICE MAETERLINCK.

"Before civilization was it is probable that the industry and systematic habits of the bee impressed their lesson upon the minds of men. Since poets earliest sang of the sweets of Mount Hybla, the bee has been the familiarly cited example of the orderly virtues and of wise humility, coupled with great worth. Just why the reporter of ancient proverbs did not write 'Go to the bee, thou sluggard,' is not obvious. The glory that has descended upon the ant is far less deserved. The bee in this climate, it is true, passes the winter in a semi-torpid state, but that is not her fault; it is the fault of both nature and man—nature in making such a climate and man in insisting upon her being an exile from the flowery vales of Sicily and the sunny plains of Southern Asia, where her earliest ancestors were first known to exist. The bee remains the most respected of the insect kingdom, and notwithstanding that a vast deal of fable and of misinformation relating to her has been swept away by the active scientific conscience of modern investigators, she still affords the inspiration of much pleasing sentiment and genuine food for the taste for the marvelous that is existent in every human being. Putting aside forever the needless untruths in regard to the bee which old writers invented or fancied that they discerned, to account for some things in her economy or her polity or her emotional impulses, that seemed, and still seem, most mysterious, the truths that may be told of her are yet a perpetual fountain of wonder, as well those which explain observed phenomena as others that simply state effects and our ignorance of causes.

"Maeterlinck takes at once absolute hold upon the reader's confidence by the austere directness of his search for truth, the disdain with which he leaves in the background as childish many old myths about the bee; the zeal and the zest with which he explores the verified data of apiculture for a clue to a suffering definition of the 'spirit' that governs the hive; for a compensating principle to offset that seeming waste and cruelty of a portion of the communal polity which contrasts so strongly with its general reasonableness. The problem of bee life incites to far excursions into the abstract; to contemplation of both material and spiritual nature, though mostly confined to the former. He seem at times to fancy that the bee may sooner or later furnish to man the key-word to the enigma of the universe; at others to accept the incapacity of the finite to grasp the infinite as a condition hopelessly unchangeable; and with an intellectual stoicism peculiarly Germanic he submits himself to the most materialistic limitations of spiritual aspiration, looking for comfort only in the deeper understanding of that which does not challenge a solution of the ultimate problem of matter and force.

"Maeterlinck attempts no more to explain the inconsistencies in the economy of the bees than he does those in their ethics. He acknowledges that the bees exemplify in some of their instincts and customs the heedless prodigality of nature, striving sometimes to repair faults or shortcomings by unsuitable excess that becomes almost a mockery; sometimes ruthlessly destroying, without any new-found reason, what before was cherished most carefully. The 'spirit of the hive,' an unknown supreme power, disposes of the destinies of the buzzing nation. It fixes the moment for the sudden slaughter of the drones; for the jealous massacre of the heiresses-presumptive to the queenship; for the timely or untimely swarming. Maeterlinck seems to suppose something very like a language among the *apidæ*, whereby the will of the overwhelming majority is quickly and effectively made known to all; by which organization for division of duties is maintained. It may, however, as he says, be more akin to an electric influence, possibly, one might add, like the spreading of an idea or a concept through all the ganglia of the active human brain at once. It might be supposed, though Maeterlinck does not express this theory, that all the cerebral matter in all the bees in the hive constitutes a collective brain, a mental apparatus, with so delicate an intersensitiveness among the composing members that it acts with prompt singleness of impulse, almost as if it were a permanent unit. The power that enables the bee through long distances to wing her way back to the hive in a perfectly straight line, even though she may have been kept a prisoner while important landmarks were being altered, is so wonderful that no adequate explanation of it can be given, even at this day, without supposing an occult cerebral sympathy, which in itself again cannot be explained until science shall have made a yet greater advance than in the past."

NEW IDEAS IN HIVES.

BY W. T. STEPHENSON.

NOT long since an article by L. E. Kerr appeared in the *Agricultural Epitomist* entitled, "A New Idea in Hives." Of course, new ideas must be advanced if any progress is to be made: but they must be progressive ideas.

Mr. Kerr says there are three styles of hives in general use. He has left out a very popular comb honey hive—the Danzenbaker. He also says the Langstroth hive and system is faulty. Will he kindly explain in what way? If the Heddon is so far superior to the Langstroth, why don't it supersede the Langstroth? The only fault I can see is in the frames (I mean the old style). They have to be handled singly; but with the Hoffman this objection is easily obviated, inasmuch as they can be handled in pairs, trios or quadruples.

The "new idea" is in dispensing with frames and using instead immovable bars to which the combs are built. This is slightly better than the box-hive, the only difference is that a section super can be used. I forgot to say that it was to be a divisible brood-chamber, like the Heddon. Mr. Kerr claims that after years of careful study he sees no use in lifting the frames out of the hives. He quotes Mr. Heddon as saying his best colonies had not had the frames taken out of the hive for five years. While Mr. Heddon has had a great deal more experience than myself, I can assert, with an assurance of good company, that that is a poor policy: nothing practical about it. I overhaul my colonies once or twice each season, and I profit by it, as I acquaint myself with the internal condition of the hives. I consider such "new ideas" extremely retrogressive and detrimental to our pursuit. With the "New Idea" hive no frames could be spread to encourage brood-rearing; it would be impossible to cut out queen-cells or to clip queens' wings. It is evident that Mr. Kerr never had any experience with foul-brood, else he would want a frame hive. Foul-brood works so silently that it is difficult, if not impossible, to detect its presence, when in the incipient stage, from the outside.

This is a progressive age, and bee-keeping not one whit behind other industries in having up-to-date tools and appliances. Bro. Kerr. if you want to use such a hive, do not. for the sake of practical apiculture, advise others to do likewise.

A gentleman in New Columbia once got up what he called Ford's Patent Hive. It did not embody as many good features as Mr. Kerr's does. It was simply a box hive with a triangular-shaped bottom-board in two pieces, one being perpendicular to the other. The projecting end was to be an alighting board. The object of the triangular shape was to rid the colony of moth worms. He claimed that they would drop upon the bottom-board and roll out. Of course every practical bee-keeper would hold such a hive in light esteem. The idea of ridding a colony of bees of moth-worms! Why, if I have a colony of bees that cannot protect itself against the inroads of the moth-worm, the sooner it is out of the way, the better. Let's bury the moth-trap along with the old box hive, non-swarming hive and self-hiver.

New Columbia, Ill.

* * *

True dignity is never gained by place and never lost when honors are withdrawn.
—Massinger.

LOCALITY AND ITS EFFECT, AND QUEEN INTRODUCTION.

BY ARTHUR C. MILLER.

I AM surprised that Mr. Doolittle concluded his article in the September AMERICAN BEE-KEEPER as he did. It hardly seems possible that a person of his professions would deliberately misinterpret, and 'tis equally incredible that so close an observer as he is credited with being, could by any other means have attributed my suggestion on loss of prestige as referring to his knowledge of bee-keeping, when the context very clearly showed that I referred to sociological and statistical matters connected with the City of Providence.

There is one thought in his article which I wish to emphasize by repeating it, though in different words: Be *yourself;* try things for yourself and don't take them for granted because some one else says so. It's worth more than anything else he has said in a long time. Locality is such a great factor in bee-keeping that trial of methods is the only sure way of determining their worth. As an example of this, the following may prove interesting: In my home apiary all hives are placed close to the ground; but in a small one, half a mile away, they are all on a bench some two feet above the ground. Both apiaries are stocked with the same strains of bees and part of the home apiary is worked on the same system as the outyard. In the latter I have no trouble in getting comb honey while in the home yard it is difficult and often almost impossible. The production of extracted honey is also affected, but not so markedly. So far as I have been able to determine, the difference is due entirely to the elevation of the hives. In another small apiary (six colonies), the owner has two hives about eighteen inches above ground, the rest on it. The two have done finely, the others poorly. In my own case this experience has extended over several years. In the vicinity of my apiaries at night, a strata of cold fog is often observed close to the ground, and I surmise that this is the cause of my home yard doing less well than the out-yard, the hives of which are above the cold, damp strata of air. In another district where I have had a trial colony to test its resources, periods of honey-flow etc., I found that the hillsides were free from a fog, while the low lands were blanketed with it about every night. Though this latter location is fifty miles from my home apiary, it would hardly be wise for one to say that because the conditions are alike in such widely separated spots, they must be everywhere; and in no locality should hives be placed on the ground unless on the hillsides, well up from the lowlands.

Last Spring I wrote about introducing

queens by the Simmins fasting method, the editor wished further information. I have never tried the system with virgin queens. Alley's plan of running in such queens with tobacco smoke is quicker and more simple. As I stated before, I believe the queen's attitude governs her reception. A begging, hungry queen is always given food; and any bee with whom they have "broken bread" becomes a member of the family. Except in caring for the larvæ a bee never proffers food to another; it always has to be asked for. Mr. L. C. Root, in *Quinby's New Bee-keeping* says worker bees possess just enough of the "mother instinct" to cause them to care for the larvæ, but beyond that they have nothing which resembles affection for each other.

In the *Bee-Keeper's Review* for September is an article by me on the introduction of queens, from which I quote this: "The queen's attitude governs her reception, and that attitude should be one of supplication. Hunger will produce that; panic in the receiving colony will produce it, for every bee is then turning for aid to every other bee, and the new queen does as do the rest. Swarming excitement does the same. Perfectly produce those conditions and you can introduce any queen." And I do it with queens received by mail as well as with those reared at home, and I give them to colonies immediately on removing the old queen or at any time thereafter. Besides making the queen fast, the other conditions for introducing can be produced by deluging the colony with tobacco smoke, or by shaking all the bees from the combs, which operation should be preceded by a sufficient smoking to make it a reasonably comfortable task. While the bees are in an uproar drop in the queen or let her run in at the entrance, and leave them to themselves. Such operations are preferably done near the close of the day, as the night gives them an opportunity to get "straightened out" and to be ready to repel any robbers on the opening of the following day. Providence, R. I., Oct. 1, 1901.

⁂

What loneliness is more lonely than distrust.—George Eliot.

SPRING FEEDING UNPROFITABLE.

Feeding Colonies with Plenty of Stores in Early Spring Detrimental and a Hindrance to the Bees.

BY L. E. KERR.

ALL the good arising from the act of feeding colonies which are not lacking in stores on unbolted flour, sugar syrup, honey or other like preparations, for the purpose of building up or otherwise, I am convinced, after many practical demonstrations, exists wholly in the mind of the too enthusiastic bee-keeper. In every instance where I have tried it, it has been even deleterious in effects. Of course, colonies short of stores must be fed, even in the Spring; but many hold that it will pay to feed for stimulative purposes colonies taken as a whole, regardless of stores. July is the time to do all the feeding for the year. The bee-keeper must see that his bees go into Winter with sufficient stores so that there can positively be no need of disturbing the bees in the Spring for the purpose of feeding. By preparing them in this way the bee-keeper will have no occasion to open the hives until the weather is so warm that all danger of chilling brood or breaking the cluster is past. If some one would furnish me the honey or sugar free, I should not allow it fed to my bees before the honey harvest. Bees will not bear tampering with in the Spring and build up rapidly.

The queen breeder, needless to say, is, of course, compelled to feed at all times: but his bees are not in their natural condition. His bees have thrown down the honest way of earning their bee-bread by the sweat of their brow, because tending nursling queens and promenading among queen-cells, such as they nor their fathers ever saw employed before in the incubation of queens' eggs, or watching the moon or some such foolishness they think is more genteel — more aristocratic. But the strong, healthy colony, with plenty of stores, does not want to be fooled with at any time of the year; and he who goes against their wishes does so to his sorrow.

There are a score of little things which the novice persists in for a long time, and this is one. There can, however, be but two reasons why any one should advocate it: one reason would be ignorance and the other a desire to deceive.

Hurricane, Ark.

* * *

The Bee-keeping World.

Peculiarities of the World's Wax Production. The beeswax as produced in the different sections and countries seems to be of somewhat varying character. Gravenhorst's *Illustr. Bienen Zeitung* has the following to say about it:

"In Austria the best wax is found or produced in the southern portion, equalling the wax produced in buckwheat localities. The provinces Bohemia, Moravia and Galicia produce a soft wax, although a distinction has to be made between the wax from the western part of Galicia and that from the eastern part. That from the first named locality has a pitchy odor, while the other possesses the common odor of wax: is red or brown-yellow and fairly hard. The best of all known waxes is that from Turkey; it is red in color and demands the highest price. The wax from Greece and its islands is nearly equal to it in quality. The southern part of France produces wax of better quality than the north. The wax from Spain is about as good as the best produced in France. Italy produces much good wax.

The wax of India is of grayish-brown and has almost no odor. The wax production upon the Islands, as Timor and Flores, etc., is of importance. Quantities of the product have been exported to China, where a great deal is consumed, and also produced.

Egypt, Morocco and the Barbary States furnish a considerable quantity of very impure wax. Beeswax from the Senegal is rather poor and dark-brown in color, accompanied by an unpleasant odor. Very good wax is produced in Guinea; it is hard and yellow, about as good as Russian wax. The American wax is usually dark and difficult to bleach. From Guadaloupe black wax from wild bees is brought into the markets. It cannot be bleached out.

AUSTRIA.

Baron v. Ehrenfels is the originator of the saying, "Apiculture is the poetry of agriculture."

◆

Colestin, of Austria, in speaking of a honey-bee visiting a mignonette plant standing in his window, says: "One and the same bee continued to work on the blossoms of the plant for eight consecutive days during the forenoon hours, staying about four minutes at a visit, gathering pollen and honey, then making her home journey and returning after fifteen minutes of absence. At no time did another bee come with her or visit the plant.

◆

Schachinger thinks bees posses herculean strength. He observed at a time a very small cluster of sixty-four bees hanging from an alighting board and only two of the bees clinging to the wood; all the rest were hanging on the two, thus each one of the two bees carrying or holding in suspension thirty-two sisters. Quite an exhibition of strength, indeed.

◆

The apicultural museum of the Central Verein contains among other things the first honey extractor ever constructed by the inventor, Major Hruschka; also one of the two hives the first Italian bees occupied when brought to Germany in 1853.

GERMANY.

Reidenbach has shown, by careful observation, that a colony of bees consumes but little honey during the three winter months, November, December and January, amounting to six or eight pounds per hive. Wilkins thinks it very essential that our bees should come through these three months in good condition: and in consideration of Reidenbach's observation, advises feeding each colony about eight or ten pounds of good syrup as soon as brood-rearing has ceased and the brood is about all hatched. He calculates that by feeding at this time the bees will store this wholesome food near their Winter nest and thus consume it first. In instances where the hives were very heavy with honey-dew or other unwholesome stores he has extracted from the central combs before feeding. Since he has adopted this method he has not had a case of diseased bees, dysentery or the like, in the Spring.

* * *

In a general way it is true that bees when at work, visit but one kind of flowers. Exceptions to this rule are very common. Prof. Cook and others, as well as myself, have mentioned such, years ago. In 1886 I spoke of a case in the *American Bee Journal*. I had observed a bee first visiting the blue thistle, then the plantain, returning to the thistle etc.; a rather singular occurrence, as these two plants named are so totally different. The editor of *Illustrierte Bienen Zeitung* has made a similar observation and announces it as a new discovery—but a little too late.

* * *

I wish to endorse the recommendation found in *Illustr. Bienen Zeitung* to eat honey instead of sugar with lettuce. Sweeten the vinegar with it and pour over the leaves.

* * *

A single bee-egg weighs one-sixth milligram. Three millions would weigh one pound at this rate. — *Schleswig-Holstein Bienen Zeitung.*

* * *

The *Deutsche Bienenfreund* urges bee-keepers to visit their neighboring bee-keepers as well as to attend the bee-keepers' conventions, and continues, "One may learn two things: how to do things and how not to do things." Pretty good advice.

* * *

The German press has gotten a hold of the following, and makes a big blow over it: A certain bee-keeper in Hoeckendorf has taken from only fourteen stands of bees five hundred pounds of honey (probably extracted), an average of 35.71 pounds. With this wonderful yield the business is represented to be a most paying one.

* * *

The advantages of having drone-comb in the hives are given in *Deutsche Bienenfreund* as follows: (1) the bees have an opportunity to satisfy their natural desires as to building it. (2) It is easier for bees to construct drone-cells. (3) More honey is stored in drone-comb. (4) Pollen is not stored in it. (5) Drone-comb section honey is pleasing to the eye (?) as well as the tongue. (6) Honey extracts more freely and perfectly from drone-combs. (7) Bees will swarm quicker when they have a supply of drone-comb in the hive.

* * *

The same paper gives a recipe for making an effective and cheap paint for hives, as follows: Take cabinet makers' glue, cover with cold water, let stand twenty-four hours, then pour off all water that has not combined with the glue. Now add linseed oil (quantity not given) and boil slowly till all has become a smooth mass. This paint will become very hard and withstands all influences of moisture.

* * *

From *Die Biene:* Drones are said to answer first-rate as bait for fishing, in particular when fishing for trout. If this is true, and the fact becomes known, it might help prevent much cruelty to animals, as the drones could be killed before putting them on the hook, while the worms now used cannot.

* * *

Many bee-keepers in Germany are in the habit of setting aside a portion of their colonies for increase, another for honey production, at the beginning of the season. Each portion, of course, has to be treated according to the object in view. We do not find it difficult to work for increase; but to obtain honey only we do. To accomplish the latter, the following rules are laid down in *Die Biene:* A colony must not be allowed to swarm nor be drawn on for increase: must not be compelled to build much comb: should be given plenty of comb and foundation. The brood-chamber must be free from drone-comb. A young queen should be in the hive, which should also be roomy.

* * *

Another new honey-plant, phazelia, is

repeatedly spoken of in the German bee-periodicals of late. The plant yields nectar of rare consistency, containing only 55 per cent. water. I have a few of the plants growing in my garden now, but not yet blooming.

◆

In uniting a queenless colony with a queen-right colony *Die Biene* says the proper way is to transfer the colony having the queen to the hive containing the queenless colony.

◆

Gerstung made the extravagant claim recently that wherever his hive was used the honey-yield had been good this year. It appears, however, that bee-keepers having other hives in use had just as good success.

◆

Valentin Wust expresses this opinion: It is easier to produce short-tubed clover than long-tongued bees.

EGYPT.

With the mummies in Egypt are often found little figures representing different animals and objects like eagles, keys etc., all skillfully moulded from beeswax either in brown colors or gilded over. It can therefore be assumed that the Egyptians of ancient times had some knowledge of bees and their products.

◆

King Rameses III., twelve hundred years before Christ. it is said, used twenty-five thousand pounds of honey during his reign of thirty-one years.

F. GREINER.

DECLINE OF BEE-KEEPING IN NEW ZEALAND. Half of those who once kept bees had given them up and the majority of those who still kept them did not know how to handle them. The true bee-master loved his bees, closely studied their habits, observed the quality of the honey gathered from the different plants and arranged, where possible, to secure each separately. Hardly any other pursuit became more engrossing and more profitable. The horticulturalist should keep bees on account of their value for pollenation purposes. A fair average from each bee colony was 20 shillings net profit. The great drawback to bee-culture was foul-brood, which disease should be taken in hand by the Agricultural department, and its removal insisted upon. In Canada the evil had been coped with by legislation. The same fostering care shown to horticulturists should be extended to apiarists, for they both belong to the one brotherhood. Fruit-growers were more dependent upon the bees than they knew of. There was no insect that did so well for the fruit-grower as the bee. It was a profitable thing for fruit-growers to take up. There was a time when the bee required no protection, for the foul-brood did not exist. All over the country bees were becoming a thing of the past, and the industry was gradually falling into disuse.—*J. Allan, N. Z. Conference.*

CHILI.

Prof. Ernest Bichet, La Serena, Chili, gives some very interesting information on the apiculture of that country. A peculiarity is excessive swarming, due to the mildness of the climate or the length of the honey-flow, or perhaps both. Even with large hives and combs already built, it is impossible to prevent it. Furthermore, there is quite an interval between the period of swarming and the heavy flow of honey, so even the secondary swarm will give some surplus. An apiary of 160 colonies transferred in frame hives, gave that same year 340 swarms and a surplus of 37,000 pounds of honey (extracted) from the whole five hundred colonies. The chief sources of honey in this locality is a plant of which the botanical name is *Marrubium vulgare*, the alfalfa, which is extensively cultivated, and some kinds of wild radish and wild turnips. Elsewhere in Chili there are other sources of honey. In his own apiary he had once 18,400 pounds of surplus from ninety-five colonies, all or nearly all from the *marrubium*.

Bee-keeping is growing rapidly. All the honey is exported, as the Chilians never use honey except as medicine. The price is about four cents a pound. Mr. Wichet got for first-class honey, five cents, delivered at Hamburg, Germany.

In another paper it is stated that moths and foul-brood are unknown in Chili.

SWITZERLAND.

In nearly every second or third paper published in Europe we find the use of the Riloche or some other press advised for making foundation, and the apiarist also advised to make his own foundation. In using a metallic press, the best lubricant is a mixture of three-quarters water and one-quarter alcohol for the upper piece: for the lower piece, every third time with the same mixture and two other times with a mixture of one-third honey and two-thirds water and a little alcohol. This formula is given by Mr. P. Peloux, in the *Revue Internationale.* These same mixtures could be used for mills as well. The above does not mean that the presses or molds give better results than the mills. In Europe a great portion of the foundation made on mills by manufacturers is adulterated with paraffine, and in very warm weather the combs thus made are apt to melt and fall down, so many apiarists use a press and work their own wax. Furthermore, there is hardly any section honey produced and the home-made foundation, rough as it may be, will do very well for brood-nest and extracting combs.

◆

Some apiculturists of the sourthern portion of Switzerland keep one or more hives on scales and report regularly to the *Revue Internationale.* The four highest daily increases reported are respectively 15 lbs., 10 oz.; 12 lbs., 9 oz.; 12 lbs. and 11 lbs., 4 oz. The four highest increases during the month of June, 1901, were 157 lbs., 75 lbs., 69 and 68 lbs. The first figure is so much above the others that I suspect a misprint; the more so because the highest daily increase for the same hive during that month was only 13 lbs.,5 oz. These daily weighings are somewhat misleading. The nectar brought during the day is not evaporated or reduced at once, so really the increase shown for the day is nectar rather than honey. The increase for a week or a month is honey except for the last two or perhaps three days, and the variation in amount of brood and bees.

◆

Another point insisted on by all the European writers is to keep up brood-rearing until late in the Fall, even feeding for that purpose if necessary. They say the colonies with numerous strong, young bees are those that build up successfully in the Spring. The old, more or less worn-out bees may live through the Winter, but die in the Spring before having done much work.

◆

Dr. C. Moulin, in *Revue Internationale* gives the following medical recipes:

For colds, sore throat etc., a syrup made with two pounds honey, one-half pound water, and fifty drops essence of eucalyptus. Take a spoonful in a glass of warm water several times a day.

For indigestion, the same as above except that instead of essence of eucalyptus, eighty drops of alcohol of menthe are used. Taken the same way, but as often as desirable, until relieved.

For cold or inflammation in the eyes, mix equal parts of honey and rose water. Apply night and morning.

For bruises, cuts etc., a salve of three parts wax, two of propolis and five of honey. The formic acid of the honey and the propolis are both antiseptic.

GERMANY.

Two new plants, or rather, new varieties of plants have lately been produced in Germany. Both are highly valuable for honey. One is the hairy vetch. Vetches generally are cultivated to a certain extent in Europe. All varieties are hardy. Some are sown early in the Spring, others in the Fall. The Spring varieties can also be sown in the Summer for late crops. They are all valuable for hay, grain, or to be turned under for manure. They occupy in cold climates the place of cow peas in Southern countries. The other is a new variety of white clover called *Colossal Ladino.* The size of the flowers and leaves, and also the height of the plant are nearly twice those of the ordinary white clover. Besides furnishing a considerable amount of nectar, it grows large enough to be mown to advantage.

◆

From the *Rucher Belge:* Papa—"Johnny, you are lazy. See the bees, how they work from daylight till night." Johnny—"I would work, too, if I had as much honey to eat as they have."

ADRIAN GETAZ.

◆

How disappointment tracks the steps of hope.—Landon.

Honey in the Statue.

The heroic equestrian statue of Robert E. Lee, in Richmond, Va., is believed to have hundreds of pounds of honey concealed inside of it. For months bees have been going in and out of the parted lips of both the human and the animal figure. The insects were first seen there last summer, and doubtless have been making honey ever since. There is no way to get inside either figure without doing irreparable damage, but fear is entertained that vandal hands may make the attempt.—*Detroit Free Press.*

THE SEASONING SERIES
MANY THINGS BY SEASONINGS SEASONED ARE.
DEACON HARDSCRABBLE.

Dear Brother Hill:

"Any fool can give advice, and he is continually at it." I'd just like to know who you had in mind when you picked that quotation for the September issue. I know several of the boys to whom it might apply. Say, why did you put it right after my letter? Er – – I want a little private conversation with you.

Well, I cannot quarrel with any one now. I've been laughing so much that I am amiable way through. The late issues of some of the bee papers are outstripping Puck. Listen to this from *Gleanings* for August 15th: First the Dr. of Straws uses German authority for suggesting our sitting around, smoker in hand, watching for the opportune moment to hustle out a swarm with it. Then he *pro*ceeds to stir the editor by writing about *pre*constructed and *post*-constructed cells. Then ye editor rushes recklessly in with one of those nice little foot notes and says not one reader in ten has any knowledge of Latin and may be *confused*. and suggests *emergency* cells and swarming cells, the latter embracing *supersedure* cells. Mind the Latin words *he* uses. Oh, 'tis rich!

In the same issue Rambler has broken loose again. Listen to the kind of vegetation they have out in California: "Buck brush, artemisia, purple and white sage, cactus, live oak and *away beyond*." I can't find the last in my botany. Hope he will never try to "write as funny as he can."

Yes, Bro. York is well over his "bad spell," and if he will now just study up on geography and locate his correspondents more definitely than by mere counties, we may be able to forgive him for setting that other fellow to Quirin our language with his "fonetik" spelling. So *you* are interested in the Texas oil wells. Slippery business. But you must not be too anxious to make a market for your goods or you may antagonize some of the boys. This editorial from THE BEE-KEEPER for September sounds suspiciously like a free "ad." "Upon the erstwhile placid bosom of apicultural journalism a significant ripple appears in some quarters. It is to be hoped that the 'storms' of the eighties are not to be repeated. Better let go a little oil now before the seas rise." (You can't sell me any.) Let the waves ripple and rise; a good storm will clear the air. Open fight is far better than the hitting in the dark, the veiled slurs and illy concealed innuendoes which are in evidence now. Oh, but I dearly love a "scrap!"

Sorry not to have seen you at the Convention; will give you some of the sidelights by-and-by. Yours as ever,

JOHN HARDSCRABBLE.

* * *

Warm genius shaped what quick emotion found.—Schiller.

If every one who wrote books now would be satisfied to dust books already written, what a regenerate world it would become. —Beatrice Harraden.

CHAT.

BY BESSIE L. PUTNAM.

Outwitting the Ants.—The presence of even a small quantity of honey is a sure test of the proximity of ants, for there seems to be nothing which will call them so quickly. By placing each leg of the table, on which honey is stored, in a dish of water, moving the table away from the wall, one may feel reasonably secure; yet the wise little insects are sometimes caught building bridges of their own bodies, if the channel is not too wide. A chalk mark drawn around the case will keep them away for a time, for ants reluctantly cross a chalk line. In our experience the most successful plan has been to scatter sprigs of tansy about freely. Though one might fear that the odor would taint the honey, we have never found it to do so; neither have the ants ever invaded honey thus protected. However, the antidote has only been tested one season, and while it has been thus far successful, it may in time wear out, as did the chalk line.

Non-swarming.—For the past two or three years a friend has tried with success to prevent swarming by giving plenty of room; two, three, sometimes as high as five supers being on the hives. He has had very little swarming and thinks it due to the fact that the bees were kept busy making honey. This method, especially to the amateur, is much easier than dividing or cutting out queen-cells. These bees, it might be proper to add, were under an apple tree, the low-growing branches of which were pruned only enough to prevent inconvenience to bee and master, and were thus shielded from the direct rays of the sun; though at noon its rays sometimes seemed quite warm, as the hives face the South.

Tidiness in the Hive.—Truly, the bee is in many ways a model of neatness and accuracy. How quickly a dead bee or foreign substance is removed from the hive; with what care and precision is every cell constructed. Yet, despite this general rule, there are occasions in which the exception seems to emphasize its validity. Combs will sometimes get in crosswise; and to guard against this, as well as to economize the time of the bees, "starter" is now universally used in the section boxes.

In families where a quantity of honey is annually consumed, even the low prices of new section boxes do not deter from the use of old ones. Sometimes, too, unless the order for new supplies is sent very early in the season, it is not possible to get it filled in time and one is compelled to resort to the old boxes, whether he wishes or not; for our largest dealers are invariably rushed during the early part of the honey-flow. Now, the interesting part of this is that the bees seem to have a decided preference for storing their choicest honey in the bright, new sections. The white combs which command fancy prices and are almost faultless in construction, are not found in the old, weather-and-propolis-stained section boxes, but in the white ones, fresh from the mill. Moral—if we would have first-class honey we must supply first-class material.

As an experiment, a section, stained and thickly covered with propolis was recently placed in a dish containing ashes and water and put upon the stove to heat. Until it became hot, nearly boiling, little effect could be observed; but when a high temperature was reached, the propolis disappeared. Some wax, which had been purposely allowed to remain, still adhered, but was readily removed with a knife, being quite soft. The section was rinsed in cold water and set in the sun to dry, coming out of the cleansing process in good shape and with almost no work save placing in and removing from the ashes and water. Contrary to expectation, it warped little in drying—not enough to interfere with its use; though I think if cleaning a quantity, it would pay to have an empty super ready to slip them into, then they would be compelled to dry in shape. If wood-ashes are not at hand, concentrated lye would doubtless answer every purpose. I see no reason why sections thus cleaned would not please the most fastidious bee.

BEE STINGS.—How often it is the case that those most fond of honey refrain from keeping bees through fear. There are occasionally persons met who are so constituted physically that even one bee sting results most seriously. These do well to keep away from them. But where the discomfort is of a transient and local nature, there is in most instances no reason why the coveted sweets should not be possessed. True, there are some persons who, through no fault of their own, seem "unlucky" in the vicinity of the apiary; but the misfortune is in the majority of cases due to carelessness or nervousness on the part of the victim.

In working around bees the beginner should always have a veil. The simplest form is one that will fit loosely over a rather broad-brimmed hat, protecting fully the most vulnerable as well as most prominent point of attack — the nose. Let the veil be long enough to tie with a shirred cord secure about the neck. Thus equipped, the head and face are secure. Fasten sleeves at wrist by means of elastic. Some have a cambric sleeve to slip closely over, and this is secured at wrist and top. If one can work with rubber gloves, so much the better; the ends of the fingers may be cut off, if desired. One thus clad should certainly have sufficient control over his nerves to avoid striking and uselessly enraging the bees if one buzzes too near. If he cannot, he might as well quit the business. The quiet, cool-headed apiarist, one who lets them crawl over his hands even if they are mad, is the one who, as a rule, comes out best. If they become too savage to render it wise to submit, quietly step among the branches of a neighboring tree, if there be one, or drop into the grass. They will soon desist their persecution. By the way, it is the one who stands off a few feet watching the performance who is usually attacked by the guards, and he can certainly slip out by one of these methods.

One apiarist finds it quite advantageous to smear his hands with honey before commencing operations. Though the bees alight for the express purpose of stinging, they often get a taste of the sweets and forgetting their rage, fall to eating. Of course this does not apply to the attacks that come like bullets; neither is it always convenient in the more delicate work to have the hands in a sticky state.

One of the best safeguards is to avoid hurting the bees. If carelessly handled and crushed in moving the frames, the injured ones or their companions are at once enraged and resort to their sole means of defense. A whiff or two of smoke will drive them to a safe distance and thus save harm.

A slice of onion applied to a bee sting, renewed every few minutes, as the onion becomes saturated with the poison, will usually afford speedy relief. Ammonia is also a standard remedy; and in extreme cases a union of the two is beneficial. But never use either until through working, as they serve to make the bees more angry. The old-time cold water compress has been superseded by water as hot as can be borne; and there are on record one or two cases which promised a fatal termination that were quickly mastered by this simple remedy. It is well to remember it if the eye is attacked, as this member would not endure the ammonia or onion treatment.

Harmonsburg, Pa.

* * *

"Every little aid and item, in some way helps."

* * *

Genius is the power to labor better and more availably.—Emerson.

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Editorial

By a recent purchase, we are informed, Mr. N. L. Stevens, of Venice, N. Y., has increased his stock of bees to nearly five hundred colonies. We learn also that Mr. Stevens captured the first three prizes conferred for honey exhibits at the Cayuga County fair. Good for Mr. Stevens.

London makes the price on Jamaican honey, since nearly, if not all of the island's product is shipped there. During the past season the quotations have been exceedingly discouraging to the West Indian producer, being 1s. per imp. gal. Twenty-four cents for fourteen pounds of nice honey is not an encouraging market.

To the subscriber sending us the most interesting letter for the December number, we will mail, free, a copy of Maeterlinck's new book, "The Life of the Bee," beautifully bound in cloth and gold. The letter must reach us not later than Nov. 19. This delightful book sells at $1.40, and the winner will find in its 427 handsomely printed pages the source of several enjoyable evenings. Open to everybody.

At the Texas Bee-keepers' Convention H. H. Hyde, it is reported, said that he favored the Doolittle method of queen-rearing; that while the *best* queens could be reared by the Alley plan, "good queens and more of them" could be reared after Doolittle. Simple assertions that better queens are produced by Alley's plan than by the Doolittle method are more numerous recently than are specific reasons why, or wherein they are "better."

The AMERICAN BEE-KEEPER was without an official representative at the Buffalo Convention of the National Association. A large number of our readers were present, however, and some notes will follow. A very interesting meeting, is the general report. W. Z. Hutchinson, the urbane editor of the *Bee-Keepers' Review*, was elected president for the succeeding term, and Mr. O. L. Hershiser, of Buffalo, was elected vice-president. The

Convention, of course, decided by its ballot to retain Dr. Mason in office as secretary.

Mr. Geo. Shiber, of Franklinville, N.Y., combines bee-keeping and merchandising, keeping about twenty colonies of bees upon the roof of his store-building, with success. His average crop—Spring count—this year was about ninety-one pounds of comb honey per colony. Mr. Shiber, though not extensively engaged in apiculture at present, is one of the well-informed apiarists of his State, having in his library nearly everything published in English on the bee. He has observed that success in bee-keeping is generally in proportion to the extent of one's reading.

Hon. J. M. Hambaugh, bee inspector for San Diego County, Cal., through the *American Bee Journal*, pleads earnestly for the enactment of laws by which every bee-keeper will be compelled to use moveable-frame hives. The old-fashioned, stationary combs, it is claimed, owing to their inaccessibility, harbor disease and thereby become a menace to apiaries adjacently located. There is no doubt that such a law would greatly facilitate the eradication of foul-brood in localities where the box-hive still exists; and as a sanitary measure would be approved by every progressive apiarist, though the presentation of such a bill might call forth constitutional objections.

In requesting of the Legislature an appropriation for the establishment of an experimental apiary, the committee of the Texas Bee-keepers' Association, according to the *Southland Queen*, included in its petition the following information, which gives an idea of the magnitude of the industry at the present time in the "Lone Star" State:

Number of colonies of bees in the State, - - -	150,000
Value of above colonies, -	375,000
Total number lbs. of honey,	11,250.000
Value of product, estimated at 7 cts. per ℔, - -	$787.500
Number lbs. of wax, -	150,000
Value of wax product, -	$ 37,500
Total value output of honey and wax, - -	$825,000

'Rah for Texas!

"Bee-keeping in the West Indies" is the name of a 73-page book recently issued by the Imperial Department of Agriculture for the West Indies. It is written by Mr. W. K. Morrison, whose name is quite familiar to reading bee-keepers of the United States. The little work is designed, evidently, to excite interest in apiculture more generally throughout the West Indies, and especially in the Lesser Antilles. It abounds in helpful suggestions for the inexperienced and is generally interesting throughout, as well as instructive. In the following paragraph, which we quote, the author has, without doubt, voiced a compound truth not yet fully realized, though soon to be established:

> When the West Indian conditions are rightly understood we may expect a substantial increase in the honey crop. Hitherto too much reliance has been placed on the methods in vogue in cold climates where the conditions differ very widely from those obtaining in the tropics.

The following very sensible proposition, from the *Austral Culturist*, has to do with a subject upon which "locality" has no bearing and the healthy condition of the author's reasoning faculties are beautifully reflected therein:

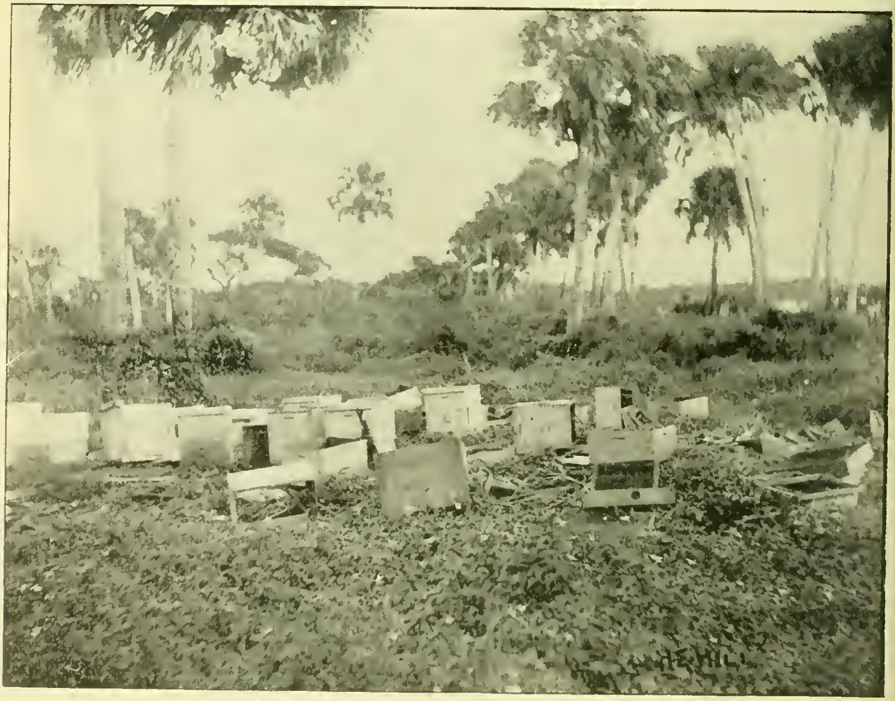
> A fixed strain of bees is very desirable

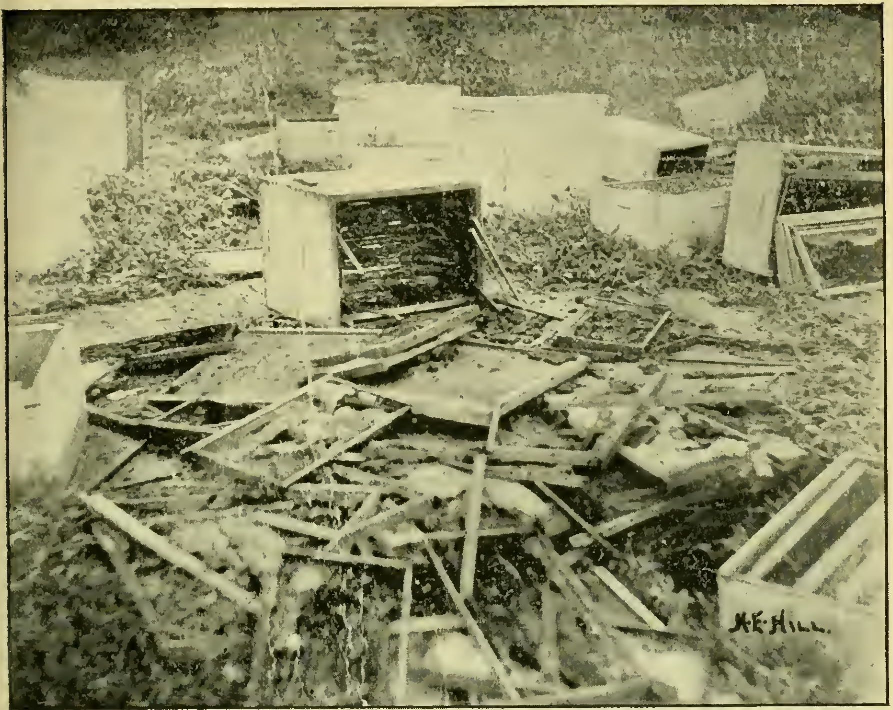
for the sake of continuing good qualities without change; but the "fixed strain" idea may be worked too hard when it comes to the matter of improvement. With a strain so fixed that there is no possibility of variation, there is no possibility of improvement. Continuation of good traits comes from fixedness. Improvement of traits comes, not from fixedness, but from variation. The trouble with a cross is that its characteristics are not fixed, but that does not argue against the possibility of greater improvement in the cross, and then it is the province of careful breeding to make that improvement fixed. I am an advocate of pure stock; but if I had the purest and best Italians on earth, and a cross that would beat them in storing by 50 per cent., I'd drop the purity and try to fix that 50 per cent. Yes, but I believe you will find that crosses would have a very strong tendency to sport back to the original stock, either one of which would be poorer than the mixture.

BEARS IN THE APIARY.

The bear is one of the bee enemies with which our Northern friends do not have to contend; yet in certain localities of the South bears are one of the greatest nuisances the bee-keeper has to contend with. During the season of 1900, Mr. O. O. Poppleton, of Florida, was greatly pestered by them. As a result of their persistent visits to Mr. Poppleton's apiaries several of the prowlers are now carrying with them more or less buckshot and one member of the Bruin family languishes behind the bars in a Palm Beach museum, as Mr. Poppleton succeeded in catching him in a trap. Though Mr. Poppleton's loss was not great, he suffered a great deal of annoyance and lost a lot of sleep while watching his bees at night.

Mr. W. O. Victor, of Texas, reports a loss of fifty-two colonies by bears. He advertised for sale a





picture of the ruins and his bearship. We at once enclosed the amount requested for a copy of the picture with a view to presenting it to our readers; but Mr. Victor thought that if this was done he would not realize the cash he should, out of it, and accordingly made application to the Librarian of Congress for protection through the copyright law.

We present in this number two pictures which will illustrate the appearance of an apiary after a bear raid. One gives a general view of the situation and the other a glimpse of the foreground. This apiary, as noted in THE BEE-KEEPER for November, 1900, belonged to the Southern Bee Company, and was located on one of the islands which run parallel with the coast, near Fort Pierce, Fla., and was visited during the absence of the apiarist by a drove of bears. Sixteen colonies were wiped out, about a half ton of honey wasted and 376 brood combs destroyed. The marauders seemed to have made the very best of the opportunity and passed on to other fields of labor without having left even the consolation which it would have afforded to know that so much honey made them sick. We have heard nothing of them since, and, indeed, are quite content that it should ever so remain.

INFLUENCING THE MARKET.

Nearly all small bee-keepers and, indeed, many of the “large” ones, appear to take much pleasure in publicly reporting a successful harvest of honey. In these years of small crops, generally, when a fellow is permitted to gaze upon cases piled high, rows of barrels or stacks of crates well filled with honey of his own production, the enthusiasm which prompts him to report his good fortune to his brothers, is excusable; though there are many who at once hasten to accuse him of having committed an injustice against the fraternity. It has really seemed for some time that nothing could more effectually arouse a spirit of antagonism than a statement from some happy mortal who finds his bees calling for a third or fourth super. To write to one's favorite paper, "the best season we've had in ten years," is simply regarded as a crime by many of those who profess, or infer, personal shrewdness in marketing. Some, in an unguarded moment of delightful enthusiasm have been so unwise as to say, "my bees are just tumbling over one another." From that moment henceforth the individual who has thus transgressed the unwritten law which enjoins upon him sacred secrecy, has been and shall be a nonentity in the ranks; obliteration is the reward of his willful imprudence. No self respecting producer could ever afterward conscientiously recognize a fellow-craftsman known to be guilty of thus wantonly ruining the nation's honey market. The duty of recognition ends with a good, sharp rebuke publicly administered.

There is another class of offenders. These make it their business to inform the local press of the immense crop which will be harvested in the State; and have even been known to exaggerate the truth to the extent of a few hundred carloads. Their doom, however, it would require a Poe to imagine or a Haggard to depict.

The prevailing supposition seems to be that reports of success tend to depress the market—lower the price. Such supposition is not entertained by individuals only, but by the bee-keeping press, to a large extent. It is not our purpose to run counter to a prevailing idea so well established. To report a large crop, individual, State or National, may have a detrimental influence temporarily. Further than that we cannot share the prevalent notion. It is, certainly, unwise—not to mention a graver offence—to exaggerate reports; but in all the discussions of the subject where it appeared that truthful accounts were rendered, our sympathies have invariably been with the fortunate producer unjustly rebuked.

Another side of the proposition is presented in a recent number of the *American Bee Journal* by R. A. Burnett & Co., whom that journal regards as the largest wholesale honey dealers in Chicago. Messrs. Burnett & Co. argue that inflated reports of the honey crop will re-act to the advantage of the bee-keeper. Such is, indeed, a radical departure from accepted theories, yet it is not wholly without tenability, by any means. This theory is based upon the assumption that man is so constituted mentally that, after reading long columns in the newspapers about the floods of honey with which Texas and California are deluged; of the general bounteous harvest throughout the States and of the shiploads from Honolulu and the Philippines pouring into this country, though he may have fully satisfied the inner man with all the good things of the market, other than this delicious honey, which has appealed again to his appetite, he will kick off his slippers, hurry into his shoes and rush for a car bound down town to make sure of a box of honey, in time for breakfast. His heart is set on honey, and if it is in town he will very likely have it. Then, incidentally, the family become partners in its consumption, and the children, at least, demand more.

Who has the best of the argument? Let the reader judge.

◆

"Life is a leaf of paper white,
Whereon each one of us may write
His word or two, and then comes night."

◆

THE HONEY BEE.

Orchardists and vignerons would do well by keeping a few hives in their fruit gardens.

It is a well established fact that cross-fertilization produces finer fruit than self-fertilization and is often absolutely necessary, more particularly with pears and cherries. Numerous instances might be quoted where plants entirely depend upon the agency of insects for their reproduction. As this, however, does not lie within the scope of this essay, it is not requisite to give details regarding such well established facts. It is an axiom that nature abhors self-fertilization. Her tendency is to cross-fertilize, and to accomplish this with plants these have evolved nectar-secreting glands, and in order to attract insects toward the minute but luscious morsels lying concealed at the base of the florets, they emit diversely scented odors or display showy colors. As the insects pass from flower to flower to satiate their cravings, they convey the fertilizing dust by means of their hair or appendages from the anthers of one to the stigma of another, and in this manner become instrumental of cross-fertilizing them.

As the greater number of the principal orders of insects, during the whole time of their mature existence, are unconsciously active in assisting fertilization, it would appear that one particular species could not play a specially important part. But on reflection it will be seen that by its habits of life the honey bee contributes quite an extraordinary share towards this object. Bees are not solely attracted by the nectar to feed upon it themselves, but they gather the same to feed their young with as well; and instinctively (or is it forethought?) accumulate stores for the support of the colony. Under this impulse they work from morning till nighs and in the course of a day visit many hundred flowers in succession, whereat other insects, whose young feed differently, visit the flowers entirely for their own benefit, and may pass over less than a dozen in a day. Besides nectar, bees also collect great quantities of pollen grains, which are the male reproductive germs, and store these for food known as "bee-bread." Whilst collecting the pollen they become, as is obvious, especially active in conveying the ripe grains from flower to flower, and by this means assist fertilization in a broadcast manner. —R. Helms in the *Journal of Agriculture*, W. Australia.

◆

A summer where there are no bees becomes as sad and as empty as one without flowers or birds.—Maeterlinck.

◆

LITERARY NOTES.

As we come toward the Christmas holidays, larger space in the magazines is given to fiction. The Cosmopolitan includes a tragic story of the Mexican foot-hills by Thomas A. Janvier, a very clever society story by Carolyn Wells, one of the Old French Romances by Richard Le Gallienne, an unusually interesting Indian narrative by H. T. George, and a wierd story by S. R. Crockett.

Superstition Trail, a powerful tale of the West, by Owen Wister, and illustrated by Remington, is the opening story in Hallowe'en number (October 26) of the Saturday Evening Post of Philadelphia. Other attractive features are a new episode in The Love Affairs of Patricia and a striking poem by Holman F. Day. Mr. Day's ballad, The Night of the White Review, tells a wierd tale current among Gloucester fisherman. It has all the swing and movement of Mr. Kipling's Dipsy Chanteys, and a strength and originality all its own.

Take as many sheets as there are days in the year. Paste at the head of each the date and inscribe a legend from your favorite poet. Leave a space for your friends to write their names against the day of the year when they were born. Bind the whole between stiff cardboard, and tie it with knots of ribbon drawn through holes made with a large needle. If you are clever with pen and ink, you may embellish your book with drawings here and there, or you may insert at intervals a picture from an illustrated paper.—November Ladies' Home Journal.

◆

Fools may our scorn, not envy, raise,
For envy is a kind of praise. —Gay.

◆

Time, place and actions may with pains be
    wrought,
But genius must be born, and never can be
    taught. —Dryden.

◆

Genius finds its own road, and carries its own lamp.—Anon.

Honey and Beeswax Market.

WASHINGTON GRADING RULES.

FANCY.—All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

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In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1, dark," etc.

Below we give the latest and most authentic report of the Honey and Beeswax market in different trade centers:

CHICAGO, Oct. 22, 1901.—There is a very good trade in No. 1 comb honey at 15c. per ℔; that which will not grade No. 1 or fancy sells at from 13 @ 14c.; some small lots of fancy have brought more than 15c. Light amber selling at 12 @ 13c.; the dark honey of various grades range at from 10 to 11c.; extracted sells fairly well at 5½ @ 6½c., for white according to quality and flavor; white clover and basswood bringing 7c.; light amber 5½ @ 5¾c.; dark, 5 @ 5¼c. Beeswax steady at 28c.

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KANSAS CITY, MO., Oct. 22.—Honey is in fair demand at present with good supply. Price of comb 12½ @ 15c.; extracted 6 @ 8c. There is a good demand for beeswax at 30c., with light supply. Colorado has supplied our market with comb. Very light supply of extracted.

HAMBLIN & SAPPINGTON.

BUFFALO, Oct. 21.—The demand of honey is improving and better prospects in view. Supply moderate. Fancy comb sells at 14 @ 15c. Fancy extracted 5 @ 6c. Good demand for beeswax, but light supply. Price for fancy, 26 @ 28c.; dirty etc., 22 @ 25c. We look for better honey market and probably quite liberal consignments can be placed as well as anywhere.

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A. B. HULIT, Editor.

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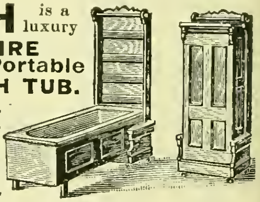

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Some little time ago I promised to tell about the bee-keepers' paradises in Texas. I have this on the docket, and it will appear as I take up the line of my travels. But since running across that paradise I have run into two or three others. There is one West of the Rockies, in Colorado, that is not yet overstocked with bees or bee-keepers; another one in central Idaho—in fact, I do not know but the whole State. These will be described in turn. The fact is, millions of capital are being invested in irrigation; irrigation means alfalfa; alfalfa means a paradise for bees. But I found all along my trip that alfalfa-growing preceded bee-keeping by two or three years, for it seems to take about that length of time before the bee-keepers find these gold mines that have been hitherto unoccupied.

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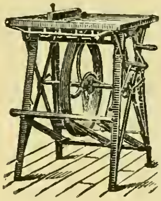

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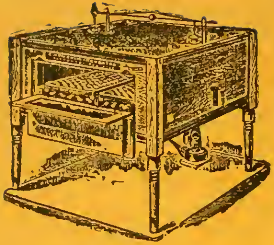

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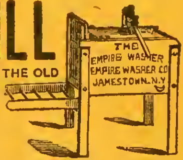

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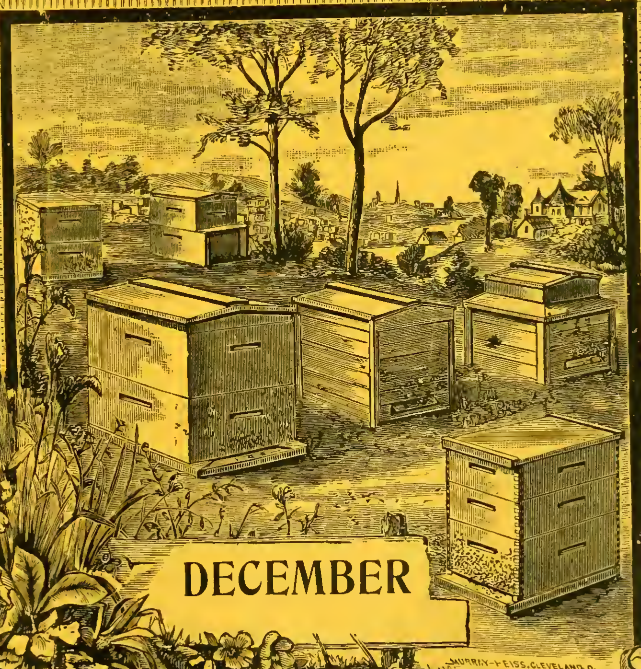
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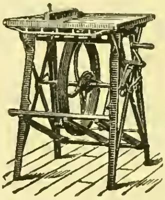

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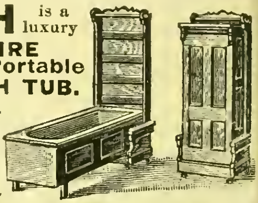

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12-tf

GOLDENROD

THE AMERICAN BEE-KEEPER

Published Monthly by The W. T. Falconer Mfg. Co.

Vol. XI DECEMBER 1901 No. 12

GOLDENROD.

She stood, the blooming flowers among
When Spring's soft airs were whispering,
And all the woods were glad with song
A poor, unsightly, weed-like thing.

The Summer, with her languid sigh,
Stole on and warmed the winnowing air,
And still the wild bee passed her by,
And still she grew, neglected, there.

All scattered lie the flowers of Spring;
The Summer's early bloom is dead;
The song-birds have forgot to sing,
The thrush to other haunts has fled.

The mountain wears a misty crown;
The first red leaves are flitting by;
But to the fields is drifted down
A glory from the glowing sky.

A reflex of the ripened sun
All Spring and Summer stored with care,
The patient plant-heart's work is done,
And now all nature owns her fair.

And from each dainty, golden cup
With amber nectar richly stored
The Bacchant bees with rapture sup
And hum love-ditties at her board.

Thus the slow-changing soul that keeps
Within her secret depths a-glow
And feels, as in long, dreamful sleeps,
The germ immortal stir and grow—
The soul that feared itself so poor,
Half doubtful of its ripening,
When Autumn's sun has warmed its core,
May bloom at last, a radiant thing.
—Danske Dandridge, in "Joy and Other Poems."

Loving kindness is greater than laws; and the charities of life are more than all ceremonies.—**Talmud.**

Peculiarities of White Alder.

(By Arthur C. Miller.)

CLETHRA ALNIFOLIA, commonly known as White Alder and Sweet Pepper Bush is both the most attractive and most tantalizing honey plant with which I have had to do. Blossoming during the latter part of July and early part of August, it comes at a time when few other flowers are open, and when the hives are often nearly devoid of honey. Could it be depended upon to yield with even a reasonable degree of regularity, it would be a boon indeed, but it is more than erratic. It never fails to flower profusely, but it gives a honey shower only about once in seven years; a moderate flow, enough to put the bees in fine fettle for goldenrod and asters, for three years, and for the other three it is a flat failure. For twenty-one years I have watched this shrub but I am now no nearer discovering the cause of its failure one season and its success another, than I was at the beginning. Low, moist lands are its native soil, but it thrives in any good loam. Its foliage is a dark glossy green, and its long spikes of waxy-white flowers make it most showy. The perfume is heavy, reminding one of the tuberose. For low hedges this plant is excellent, growing close and dense and the stems never getting large and coarse as with California Privet, which in appearance and habit it somewhat resembles.

The honey from this source is as peculiar as the yield is uncertain; in color it is a very pale amber, and in body, when thoroughly ripe, a little less heavy than that from clover. When new, it tastes much as the flowers smell and is so pronounced in flavor as to be cloying, but if left in the comb until Christmas it is most delicious. But like all high-flavored honeys it fails to meet the palate of everyone. As an extracted honey it is a failure; that is, it has always proved so with me. It seems to demand the slow ripening in the comb to mellow it and rid it of its excess of essential oil, and no treatment which I have been able to give the extracted article has helped it at all. In fact, if warmed up to what would be a perfectly safe temperature with most honeys, it is ruined and tastes horribly musty.

This year the plant yielded a small surplus, but the honey fermented in the combs. The weather was warm and dry, and the colonies strong, but there the combs were, full of honey, all full of bubbles and all unsealed, and the bees did not seal it until goldenrod began to yield.

There is another variety of this plant, C. Acuminata, or Mountain Sweet Pepper Bush, which is a native, I believe, of more southern districts, but is seen here in cultivation. As grown here it is much coarser than C. Alnifolia, and not so attractive. I am not familiar with its characteristics as a honey plant.

Providence, R. I., Oct. 29, 1901.

Lettuce is like conversation; it must be fresh and crisp, so sparkling that you scarcely notice the bitter in it. Lettuce, like most talkers, is however, apt to run rapidly to seed. Blessed is that sort which comes to a head, and so remains.—Warner.

Bee-Keeping as a Side Issue.

Or a Back-yard Industry.

LESSON NO. 5.

(By F. G. Herman.)

FROM time to time there have been rumors that the making of artificial combs had become an accomplished fact, but so far these rumors have proven false, and the honey bee still keeps the patent royal on comb making.

The most that the inventor has been able to do is to furnish the bee with a pattern to induce her to build her comb straight and in an orderly, shipshape fashion. These wax sheets, when cut into strips, with the impressions of the cells stamped on them, are called "starters." They are fastened into the frames by the bee-keeper and are a great benefit to him, for with them he can regulate the amount of drone comb he wishes to have in the hive, besides giving great aid to the bees in building comb. Since it does not require either hard physical labor or very much previous special training, but does call for the distinctly feminine traits of patience, tact and watchfulness, and since it promises in return both pleasure and profit, bee culture seems to me to be an almost ideal occupation for the woman who wants to emulate the busy bee and improve each shining hour.

In Delta, Colorado, there is an enterprising woman who operates five hundred colonies of bees with only women help. It will be remembered that in Colorado the women enjoy the right of franchise, and they can run an apiary as well as a state.

Aside from its attendant pleasures and profits, there is peculiar fitness in that a bee-hive is a living illustration, a working model, and a triumphant indication of the applied principles of women's rights. In the bee colony the male is a necessary evil, or, rather, an evil necessity. He is hatched from an inferior egg, lives through a neglected infancy, reaches a despised maturity, has his little day and is promptly pushed off the boards; in other words is hastily dispatched by a disdainful and all-powerful femininity. To this rule he has no choice but to submit, since he is provided by nature with no weapon of self defense in the shape of a sting, and hardly any tongue, though this perhaps would avail him little against so strong a feminine majority. Under this despotic feminine sway the kingdom is ruled both well and wisely, so perfectly indeed that a colony of bees has always been held up as a model of good government. The woman who would prove the justice of her claim to a voice in the affairs of the nation has her enemies on the hip if she has a bee-hive in good working order, it is an irrefutable argument on her side of the question. But while a woman would scarcely become a bee-keeper for the sake of proving an argument, she might well do it for the sake of the pleasure, aside from all thought of the very considerable profit which the occupation yields.

In the bee kingdom everything is subservient to the making of honey. It is with this ultimate end in view that the queen, when six or eight days old, soars out of the hive on her wedding flight. With this end in view she returns to spend the rest of her natural life in laying (during the laying season which lasts from early spring to late fall) eggs at the rate of two and three a minute. As she lives for three or four years, she thus produces in the course of her life time something like a million eggs, which should certainly enable her to feel, on her death-bed, that her time had not been wasted. Always with the idea of the production of honey uppermost in her mind she lays but few eggs from which drones will be produced (these eggs are of a particular kind which by an all-wise providence, she can produce at will), but devotes most of her energies to the laying of eggs from which in the course of about twenty-one days worker bees will come forth. The same kind of egg is capable of producing either a worker or a queen, according to the manner in which it is fed.

The power of decision as to whether an egg shall be developed into the one or the other rests not with the queen-mother, but with the worker bees, who thus not only control the present, but arrange the future as well.

How much honey a colony of bees is capable of producing in a season depends greatly on the prolificness of the queen, and on the abundance of nectar-yielding flowers within a radius of two or three miles.

Englewood, N. J.

'Tis with our judgments as with our watches; none
Are just alike, yet each believes his own.
—Pope.

Bee Pasture.

(By L. E. Kerr.)

VERY often we see the question asked: "Is there any plant that will pay to grow for honey alone?" Whether such a plant exists I will not try to say, but I do wish to say that this question sounds a little foolish, for who would wish to cultivate a plant that furnished only nectar, while there are so many nectar-yielding ones, which furnish also excellent crops of fruit and grain. I am of the opinion that new plants for supplying nectar, are not half so desirable as would be giving attention more to some of our present field crops and study to have them coming on at the proper time to fill up the vacancies between the main flows from the natural sources.

I also incline to the belief that longer tongued bees are to be desired more than short-tubed clover, for the reason that though the short-tubed clover may be had, advantage over the one single plant is all we have; while by lengthening the bees' tongues till they can work on red clover, hundreds of plants equally as valuable as red clover would be brought within reach of the bees at a single step.

In studying your locality, first learn from whence the main flows come, and then study to fill up the vacancies between these by planting some paying crop which will make a quantity of some marketable produce as well as nectar.

Bear in mind, however, that every locality has its natural honey flow, and that to plant anything which comes on during this would be simply worse than useless. Also there must be a limit to these proceedings, or, perchance, the bee-keeper may become entirely absorbed in that remarkable occupation called "farming," and suddenly discover that he has become "the man with the hoe," and is raising nectar for some other fellow's bees. It is a fact that more nectar is going to waste now than is being saved by the bees; the trouble being that it all comes on at once. It may be possible to some day get the flower question down so fine that we bee-keepers may have a "main" flow lasting a whole season. Then, with this flora and bees "yellow from head to toe," and having tongues that will fit all the flowers; what may we not expect?

Hurricane, Ark.

When any great designs thou dost intend,
Think on the means, the manner and the end.
—Denham.

When responding to any advertisement found in our columns, kindly confer a three-fold favor, by mentioning the fact that you saw the advertisement in the American Bee-Keeper.

Flavor of Extracted Honey. Superseding Queens.

(By G. M. Doolittle.)

A COUPLE of qestions have been sent in to me with the request that I answer them in the American Bee-Keeper, which I will do with the editor's permission. The first one is, "What is the best plan to preserve the flavor of extracted honey?"

To give extracted honey a fine flavor it must be thoroughly ripened. While some have evaporators, both sun and other, which they pass extracted honey through or over, that has been extracted in its thin or green state, till they tell us it is of nice quality and consistency, as well as having an excellent flavor, yet, in my opinion, no honey has quite as nice flavor as does that which has been left on the hive till the end of the season, the bees having been allowed to ripen it till it is so thick that it will almost stand alone, after being taken from the comb. Of course, it is more work to extract such honey, but by keeping it in a room the temperature of which is nearly or quite 100 degrees, for four or five hours, it can be extracted very nicely. When extracted, honey should be stored in tin or earthen vessels, and kept in a dry warm atmosphere that is free from odors. Loosely cover and let it stand in this dry warm store room until all the air-globules have disappeared; the scum that arises being skimmed off, when the honey can be put into glass or tin vessels, ready for sale or family use; and it will retain its fine flavor for years, if kept in a proper place.

SUPERSEDING QUEENS.

The second question is this, "Is it advisable to let a queen become more than from a year to a year and a half old, before superseding her with a young queen?"

Some believe it advisable to supersede all queens each year, while others are more moderate and say that "every queen should be superseded when two years old," unless perhaps they except these most valued for breeding purposes, such claiming that older queens, as a rule, are not so prolific as young queens; hence it often happens that older queens fail at a time when the work of storing surplus is interfered with. All this reads very nice, and if time hangs heavily on any bee-keeper's hands, here is a chance for such an one to pass away his time with the idea that he is doing that which tends toward a greater financial gain; but with the average bee-keeper it is usually more work than he can do during the summer months, let alone any work of a doubtful nature. There is no question but that we want, for comb honey production, either very prolific queens, or queens which give bees having great longevity of life, or a brood chamber not of a size which will require the most prolific queen to strain every nerve to keep it filled with brood. I believe it more profitable to adjust our hive system to the average queen producing long lived workers, than to practice superseding queens every year, as some do.

A queen should be allowed, according to my opinion, to remain as mother of a colony as long as she retains her fecundity, for the prolificness of a queen, and the long living of her offspring should be the test in this matter; not age. I never supersede a nice queen, no matter how old, until she shows signs of failing powers. I want queens for the good qualities of the workers coming from their eggs, and for that reason, power of production, and not age, is the rule to follow. I would not keep even a young queen, if she did not lay up to a fair average, and her workers showing a shortness of life, for there are a few queens which show before they are six months old that they are unworthy of the name of "mother," by the fewness of their short-lived offspring. And where I find such queens, I always give their colonies something better to take their place, no matter how young they are. However, such queens as this last are the exception and not the rule; for the bees do not often allow such queens to remain in the hive long, especially if they are of the Italian variety.

After experimenting in the direction of superseding queens for years, I now decidedly prefer to leave it to the bees to decide when their queens are worn out, unless, by outside observations, I believe they are holding on to some young queen not worthy of the name of "mother queen." As a general thing, the bees will make fewer mistakes in directing this delicate matter than the wisest apiarist is likely to make, therefore I think it reasonable to leave this matter to them most generally.

Borodino, N. Y.

Oh, as the bee upon the flower, I hang
Upon the honey of thy eloquent tongue.
—Bulwer.

Wm. Rohrig for Director.

Just as we go to press, (Nov. 23), Gleanings for Nov. 15 comes to hand, and we note that President Root has very kindly included the name of H. E. Hill in his nominations for directors of the National Association. While we deeply appreciate the honor thus conferred, we more deeply regret the use of our name in this connection. That we are deeply interested in the success of the Association and its work, is indeed true; but that the name of one who has never taken active part in the Association meetings, should be used, to the exclusion of the multitude of eminently more capable and experienced gentlemen on all sides of us, is to be deplored. The American Bee-Keeper prefers to and insists on remaining outside, with the assurance that it will earnestly co-operate with the Association in every move which it recognizes as beneficial to the fraternity. Further than this we have no ambition, and believe that we can better serve the Association in this way. If it is desired that a representative be elected from this section of the South, let our readers who are members of the National Association, concentrate their votes upon Mr. O. O. Poppleton, of Stuart, Fla., an experienced Association worker and a devoted member; Dr. J. P. H. Brown, Augusta, Ga., or Mr. W. S. Hart, Hawks Park, Fla. Editor Root has placed in nomination the name, also, of Mr. Wm. Rohrig, Tempe, Ariz., with the assurance that he is a gentleman worthy and capable. Let's elect him. Remember, Wm Rohrig, Tempe, Arizona, is a candidate for director at the December elections.

THE
SEASONING
SERIES
MANY THINGS BY SEASONINGS SEASONED ARE.
DEACON HARDSCRABBLE.

Dear Brother Hill:

Now what do you think of A. Q. Cumber? He's all "cut up," peppered and vinegared, and writes as if I had 'saulted him too. He says "the bee business needs some things pretty bad just now"—and it is getting 'em. He also says he has always flattered himself, etc. Ah, me, how little he realizes that "pride cometh before a fall." Suppose you tell him for how much I undertook certain journalistic labors; 'twill give him an awful tumble, so send him some of your oil to go with the pepper, vinegar and 'sault. And will you be so kind as to loan him the volume of your encyclopedia containing the article on Samuel Johnson, L.L. D., Lexicographer, Journalist and Poet, after which he may be interested in Boswell's Life of Johnson. "Dr. Johnson, whoever he may be." Oh, dear, that is irresistibly funny.

'Tis a wearisome and puzzling world, this, and one never knows how to take a body. Who'd have thought that Cucumber was of the "spined" variety? Nothing was farther from my thoughts than hurting his feelings, but just see how he took my badinage. It grieves me much.

Writing of grief reminds me of the first article in the October Bee-Keeper. That Rhode Islander grieves so over the shutting up of his bees for the winter that he even puts the hives into mourning—wraps them in black tarred paper. Fancy! does he weep too?

So you have borrowed some "Stray Straws" have you? Was it to make bricks with? Well, you might have done worse, aye far worse. The kindly doctor, who presides over that department of Gleanings is one of those sunny souls who makes the world better just by being in it. Long may he stack straw.

What do I think of the department "The Bee-Keeping World?" It's right good, but aren't you a little presumptuous to try and get the World into your little paper? However, as you have that lively Tennesseean to help you, you will succeed. He's a whole regiment in himself; just a bit caustic now and then, but that adds spice. Then that solid German in York state gives weight and stability to your whirling universe.

Um! So he of Cuba, N. Y., has got after you. Well, you get no sympathy here. Any one who will perpetrate such puns as you did and be as facetious as you were in the October editorials deserves something hot.

Bro. Abbott is trying to make trouble for himself. At the convention he said some forcible things about the need of mixing text books with brains. First, he knows some one will say he's "twins" with you or me or that Rhode Islander.

In Gleanings' "Home" papers for October 15, A. I. R. talks of the sending of "expert teachers to the uttermost parts of the earth" Hum! seems to me our Scholars go to the uttermost parts of the earth for knowledge—and find it. Think he ever heard of the civilization and culture that existed thousands of years before we appeared on the turf? We're not the whole thing and we can learn a lot from those poor, ignorant foreigners. Mayhap we can give them points on economical manufacture and on commerce, but in matters of profound and abstruse thinking—well, 'twere meet that we observe extreme modesty.

There is one of the boys who, no matter what the subject may be, is always giving his opinion on it, and though his name carries weight, his ignorance of some things is profound. Evidently he little wots that "That which we least know we most firmly believe." He is getting to be to progressive bee-keeping what the Old Man of the Sea was to Sinbad. Never mind his name, but if you can't guess I will tell you sometime.

Yours as ever,
John Hardscrabble.

Good counsels observed are chains of grace. —Fuller.

The annual convention of the Ontario County, (N. Y.) Bee-keepers' Association will be held at Canadaigua, Dec. 13 and 14.

THE Bee-Keeping World

Germany-Austria.

Germany and Austria have two great bee-keepers' organizations, the older one, the Wander-Verein, the other of later origin, the Central-Verein. These two bodies held a joint meeting a year ago, which proved to be a success. This year again both met in Breslau, the residence of Dr. Dzierzon. A grand exhibition of bees, bee hives and supplies was held in connection with the meeting. In fact these exhibitions always form the most interesting and important part of the whole proceedings. Bee-keepers come from far and near to inspect the hives and fixtures in particular. The discussions taking place at the sessions can be read in the bee journals at leisure any time after, but the good of an exhibition can only be had on the spot, there and then. (It has been the opinion of the writer that this feature, of an accompanying exhibition might be added to our American bee-keepers' gatherings with profit.) To what extent these exhibitions are carried on may be judged from the fact that there were 95 exhibitors, showing live bees in full colonies, nucleus hives and queen cages. Over 100 colonies of bees were exhibited. A convent from Breslau brought several inhabited old and clumsy log-gums secured by heavy iron hoops and pad-locks. Another exhibitor had placed eighteen colonies of bees on exhibition. Gunther-Gispersleben was present with an old, badly worn hive, which served him when he began bee-keeping 50 years ago, etc., etc. It is further reported that 30 colonies had perished in transit (from this latter fact it would seem that the German bee-keepers might learn from their American friends, in particular of Mr. Coggshall, who has been sending carloads of bees to distant points, such as Cuba, etc., without loss worth mentioning.)

The exhibition of bee hives was as complete as that of bees, there being shown 80 different hives, from the straw skep, log-gum and Huelper to the most improved hive of the present day.

However, I have failed to notice that a single American hive has been spoken of. I know there are some of our hives in use over there, and I am surprised, and I regret that none should have been exhibited. I believe some good and profitable work could be put in here by our manufacturers.

A conspicuous part of the exhibition, next to the honey show, was the collection of honey wine, honey beer and other honey-liquors, a branch of business almost wholly neglected in America, and perhaps, justly so, as the desirable class of men, such as we wish to associate with, abstrain from these things and consequently do not produce them. This matter seems to stand different in Germany, and it really seems strange to the American, that the Germans should consider it necessary, in order to create a high degree of enthusiasm for the occasion, to imbibe large quantities of wine and beer. I have observed that these things are more often a disturbing element in America. Perhaps it is all right to use them in Germany. It may be a matter of locality. At any rate, the bee-keepers' conventions are generally held in places where wine and beer is being manufactured and dealt out.

The discussions of the great convention did not bring out anything new, so far as I have been able to learn. Dr. Dzierzon, as the first speaker, again dwelt upon his theory, the Parthenogenesis. He cannot forgive or forget that a man of our age (Dickel) could have the audacity to oppose it, and that some bee periodicals continue to open their pages to Mr. Dickel and allow him to argue his case.

Baron Bela Ambrozy spoke of the advantages of the twin-hive of Dzierzon, Guhler about adulteration of honey, and what to do to prevent it, etc. It would lead too far to give even a synopsis of the many addresses. Suffice it to say that the participants passed some very pleasant days and that no discord marred the harmony.

The Leipziger Bienen Zeibung makes note of an interesting experiment made by Forel-Morges, Germany, testing the intelligence of the honey bee. Forel had a quantity of Dahlias blooming in his garden which were frequented by his bees. Among these flowers he placed some artificial ones, made of different colored papers, also putting a little honey into each one. The bees entirely ignored these artificial flowers. Not until Forel caused one of the bees to come in direct contact with the honey contained in one of the red flowers did the bee take notice of it. She continued to work on the artificial flowers, but she brought no other bees with her (the bee had been marked with red paint). Quite a number of other bees were shown the hidden treasures, and after a little time all bees turned their attention to the artificial flowers, wholly neglecting the others. Forel now removed all the artificial blossoms, when the bees resumed their labor, working as before, on the others; but as soon as he returned them, they at once again searched the paper flowers for honey and left the natural bloom, working on the former as long as honey could be found.

"Where is the proper place to store honey," has been discussed in Leipziger Bienen Zeitung. It seems to be agreed that the principal thing to be looked after is, absence of moisture. Another point is made. Light is claimed to injure honey. We cannot see that light has any bad effect upon honey; excepting direct sunlight.

Dr. Josef Langer, as reported in Bienen Vater, has made a careful examination of the bee poison. The composition is different from what has been supposed. The water-white, clear fluid contained only slight traces of formic acid: the poisonous part is a substance by itself. Bacteria are absent in the fluid, and it is assured that on this account it cannot produce inflammation and blood poisoning in the strict sense of the word. Difficulties often arise from the use of unclean antidotes, scratching with the finger-nails, etc. There appears to be a difference in the quantity of poison in different bees. The poison sack of a young bee contains about 0.00015 gram; of field-bees, 0.00025-35 gram. It has been ascertained that the sting of a bee affected with dysentery is much more painful than that of a healthy bee. It was also found that the secretion of the poison was greater when bees worked on buckwheat than at other times.

Several cases are reported in Gravenhorst's, B. Z., of blood poisoning having been cured by incidental application of bee stings.

As soon as granulation begins extracted honey should be stirred at short intervals during the process of crystalization. This will cause the grain to be fine and prevent the separation of the thin portion from the crystals, so says Mangler in Gravenhorst's, B. Z. He also gives other good hints regarding the taking and handling of the crop. Much smoke injures the flavor. Extractors, uncapping cans, honey knives and other implements and utensils should not be left standing very long with honey adhering, but should be cleaned with boiling water as soon as possible. Combs with much pollen should not be put into the extractor; or, at least, honey from such combs should be kept by itself. Combs, containing brood should be kept above queen excluding metal long enough to allow all bees to hatch out before extracting the honey therefrom. After the honey has been standing a few days the upper portion, containing particles of wax, etc., should be removed and used for feeding, it is therefore not practical nor advisable to fill any receptacles calculated to go to the consumer directly from the extractor. Extracted honey, having a tendency to absorb moisture from the surrounding atmosphere, unpleasant odors, etc., should be tightly covered. Tin vessels are to be preferred. Bee-keepers should make it a point (which the writer emphasizes) that their extracted honey goes to the consumer in original unbroken packages.

Very little, if anything, has appeared in German bee periodicals of late about breeding bees for quality. Spitz-Stadel brings up this matter in Illustrierte B. Z., and tells of his success in treating six selected colonies that had done poorly for two seasons, in the following manner: The old queens were removed at the time when his other colonies were swarming and ripe cells from the latter were substituted. In due time the six colonies went away ahead of their past records, and that of the other colonies. (It strikes us that superior blood had nothing to do with the success of these six colonies during that season, as the honey season was over by the time the bees from the young queens came upon the stage of action. However, we believe in breeding for quality, but we also believe that progress will be very slow).

Brazil.

The Brazilianische Bienenphlege in speaking of differently colored honeys, reports a case of two bee-keepers be ing located within a ten-minutes' walk of one another; the bees of one gathering water-white honey, the bees of the other very inferior, dark honey. This, of course, at the same time. One apiary is located near an extensive forest, the other near a body of water. The inference is, that bees do not make long flights when gathering honey. (The majority of American authorities would say: "If one of these two apiaries, being located within a half-mile of the other, was near a forest or a body of water, both were near.")

F. Greiner.

OUR
CORRESPONDENTS

Florida.

An Interesting Descriptive Letter From One in Quest of Light and Consolation.

Grant, Fla., Oct. 21, 1901.

Editor American Bee-Keeper:

Dear Sir—When we heard you were on your way to Florida to be one of us, there was great rejoicing. "Now," we said, "we will have some one to tell us all about bee-keeping in the land of flowers." We will know at least what our neighbors 40 and 50 miles away are doing without going and seeing. Also we will soon know why bees will stay in their hives and go supperless to bed, rather than go out and fill their two stomachs with saw palmetto honey (and keep the bee-keepers' empty, too). Now, are they afraid that the hot sun will cook the nectar, using the bee as frying pan, or have they got "that tired feeling" we people in the South have at that time of the year?

I have watched my bees and wondered and wished chance would send some one to us who could tell.

I think your readers must say to one another. "Well! the bears have got all of Hill's bees, and Poppelton's have all died with paralysis, can't be any more down in Florida, or the editor would say something about them."

I watched The Bee-Keeper last spring to find if all the bees on the east coast had declared a strike on, or if it was only my own 80 colonies who refused to gather, while they could; so, as I could find nothing, I thought I would set sail on a voyage of discovery.

The wind being fair (fare on the train to Vero) we started for Mr. H. Gifford's 300-colony apiary, about 20 miles south of Grant. Arrived three miles north of his place and was met by Mr. Gifford with a team of mules. Flies being bad and team good, we soon arrived at his home and found a hearty welcome and supper awaiting us.

Mr. Gifford took me out to see the home apiary at once. The sun was down, and the last workers were coming home loaded. It made my heart glad to see them, and by the hum, the bees were as happy as I. It reminded me of seasons when good strong colonies put in two to three hundred pounds.

I had kept bees nine years, and have learned all I know of others' experience from reading; so you may know what a pleasure it was to meet Mr. Gifford and son. The father has kept bees since 1863, and is well read on the subject. He comes from Vermont, and has lived in Florida about fifteen years.

I learned a great many things, among the rest was that my own bees were about as good as any one's. Also that I did not have all the bee trouble there was in the world. We talked long-tongued bees, and neither could see why some of our own bees did better than others. For all of our southern flora are very small and shoal. Tongues would have nothing to do with us. Wing power and carrying capacity would. Some colonies, of equal strength, will have a difference of one hundred pounds of honey. Why is it?

He has bought queens; so have I; mine were all poor: his good, only when shipped to him in winter, after queens' quit laying. Mr. G. says it is like turning a fresh milch cow out in the woods for a week and expect her to give as much milk as she would have done if milked and taken care of.

I read about improving your stock. I have got as good queens from poor queens, as I ever have from my best, and I have had queens that would keep three ten-frame bodies full of brood, and bees to store 300 to 400 pounds of honey. When the bees don't gather honey, we all yell, "Poor stock." When conditions are wrong bees will not gather honey, and we will have poor years as long as the world lasts. I don't know why, would like to. Who does know?

Next morning Mr. Charley Gifford, wife, sister and the rest of "we" went to the ocean beach, five miles away, two miles by land and three by water. They have an out apiary on an island in the river. We stopped and looked through some, and found the strongest doing very good work, in supers. They only worked nights and mornings.

On our way to the beach I looked into saw palmetto and saw plenty of nectar, it was then 11 o'clock. There were no bees on the bloom though the woods was sweet with the odor. We walked up the beach and back to the river by another trail. I looked for bloom and bees. It was just as it was in the morning. At half past three we were back at the out apiary and the bees had just gone to work. Why didn't they work all day?

The next day Mr. Gifford took me to an elevated out apiary he has on the mangrove marsh, two miles south of his house. We drove, and it was hard pulling through the stiff, wet, marsh clay.

There was about fifty colonies and they were at work on saw palmetto, but were put there for mangrove, which comes later. There was quite a good body of it. The bees were put up above the ground about 10 feet, to be above the water in gales, and barbed wire was put around them to keep the bear out.

The same day Mr. Gifford opened hives at home, for me so I might see how they looked inside. He uses Hoffman frames entirely. I use thick tops below and all wood in super, as I can uncap faster.

I worked the smoker, and he the hives and frames. I at home work alone, and use very little smoke, and don't kill any bees. Mr. Gifford likes lots of smoke, and, what was more wonderful to me, let me talk just as fast as I wished. That always bothers me. He showed me some of his best queens. They were beauties, and some hives had fifty pounds of honey.

After looking at the best, I said: "Mr. Gifford, will you, as a favor to me, for future use, when I get discouraged, show me the poorest one you have?" (I know I am mean for telling this.) He walked to a hive and opened it. I think there were about 100 bees in it, and a small patch of drone brood.

He told me the hardest thing he has to contend with is poor queens. He re-queens every year, but out of 300 colonies he is bound to have one poor queen, just like myself.

He has found like myself, that barrels are the only thing for us to ship in. Tin costs too much.

Mr. Gifford showed us his fruit farm. It was splendid, and as I did not have any at home he gave me three bearing trees, but I did not bring them home with me, as our land will not suit them.

He has all kinds of fruit that will grow on the Indian river, and I think the most complete fruit farm on the whole east coast. They were truly fine.

The birds and I had a fight over the mulberries. They were as good as the best New York blackberries, and the trees were very large and had had bushels of fruit on them.

I cannot tell about the oranges, Japan persimmons, mangos, bananas, guavas, and other fruit I am not acquainted with.

We had oysters for supper. They have a bed that keeps fat all summer. Next day, our time being up, we had to go home. On our way to the station, we stopped at another out apiary.

They call it the "yellow apiary," as the bees there come the nearest to being pure Italian. I left home very much discouraged with bee-keeping, but Mr. Gifford thought it paid about as well as any rural pursuit and that we get a crop in Florida as often as elsewhere. He has got some big crops in former years, but the last two years the crops have been poor. I think his place is over stocked. There are about 800 colonies on a ten-mile strip.

Mr. Gifford believes we can cure our honey too much for our own good, as thin honey sells for as much in the north as thick.

I have always left mine on the hives till all sealed, and so saw palmetto would pile up on the funnel, when barreling it, but I don't know as it paid in pennies. Cabbage palmetto honey can't be cured so, must be "endured." But it makes the best cake. I read so much about the commission houses being such bad places to send honey, that I shipped my first without any idea of hearing from it again. Think of my surprise at receiving a check paying me more than I was getting, delivered, by the gallon 20 miles away, that is, retailed at people's houses.

Too much has been said about home market, in our bee papers.

Now Mr. Editor! I hear tell of the great St. Lucie river apiaries and what big bee-keepers live there. As you are one of them, why can't you tell us something about Florida bee-keeping? Is there nothing in it to tell? I thought there was when I was learning.

Am I the only subscriber you have who is interested in it? If so will say no more.

My bees are in fine condition for next season, and have hopes that it will be " an old timer." I hope that there is paper enough here for you to build your fire with, and don't blame you if you do so. Yours very respectfully,

(Mrs.) Sarah A. Smith.

(There is a great deal in Florida in regard to which much might be written that would doubtless prove of interest to resident bee-keepers, as suggested by our esteemed correspondent, and we shall endeavor to give "The Land of Flowers" its due proportion of consideration. It should be borne in mind, however, that by far the greater portion of our readers live in the northern states; while The Bee-Keeper's circulation extends to every English-speaking country in the world. Florida bee-keepers, as well as those of every quarter are cordialy invited to send us material for publication; so that The Bee-Keeper may maintain a well balanced variety of generally representative matter. We should be pleased to have all our readers correspond freely. Such a letter as the foregoing, we are sure, will find interested readers everywhere. Come one, come all.—Editor.

"About the bloom the bee abides,
While humming birds flit to and fro;
A langour over earth presides,
And Nature's voice is hushed and low."

By preserving the copies of The Bee Keeper and having them bound, a valuable reference volume is secured. For the benefit of those who do so, an index is included in this, the final number for 1901.

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Editorial

INFLUENCE OF TRANSFERRING LARVAE.

It will be remembered by our readers that, on page 133, July number, Mr. Alley wrote of the detrimental influence upon the queens which transferring the larvae imparted. Mr. F. L. Thompson, in Progressive Bee-Keeper, says he was inclined to regard this as a fanciful idea. It appears, however, that Mr. McNeal's contribution in August number, in which it was claimed that, "When a larva is transferred to the cup it does not matter how much royal food is given at the time, the bees always remove it," afforded a plausible solution of Mr. Alley's unsupported claim. Continuing the subject, Mr. Thompson writes:

"I mentioned this to Mr. Shatters, who had had a long experience in rearing a great many queens by the cell-cup plan. He replied that if the food given is perfectly fresh and thin, the bees do not remove it; and if queens so reared had weakened constitutions, why was it that the average life of his queens, reared by the cell-cup plan, was three to four years, while the average life of queens in the same yard from natural-swarming cells was only two years? Moreover, he said if any plan is unnatural, it is the Alley plan; for natural queen-cells have thick bases, and artificial cells, still thicker ones; while the bases of the Alley cells are only protected by the thickness of a worker-cell wall, from extremes of temperature, which may affect both the larvae and the food. So, there are both sides of the question, and the reader can take his choice—or, better, reserve his judgment."

Ah, but there is wisdom in that last sentence. Both the Doolittle and the Alley plans, together with their numerous modifications, are successfully practiced by experienced breeders, and we all know that excellent queens are reared by both methods. There can be no doubt that if every feature of each system were scientifically and practically weighed, one or the other would demonstrate its general superiority; but, with Mr. Thompson, we say, let us reserve our judgment, yet a while.

A KNOTTY PROBLEM.

One would hardly think it possible to propound a question relating in any way to apiarian subjects that would baffle the sages and wise counsellors recently convened at Buffalo. The question-box comprised the whole programme, or nearly so; and yet, it appears, one little problem, apparently simple, which was there brought to light, is now seeking its solution through the medium of the apicultural press. It is none other than a feasible and acceptable method by which directors and general manager of the National Association may be nominated in advance.

That the board of directors of the National Association should be chosen in such a manner as to fairly represent all quarters of the United States, is a point upon which we have dwelt in the past. There is no word of fault to find with any member of the present board—far from it. They are all worthy gentlemen—faithful officers, of which the Association is proud; but that has naught to do with the obvious fact that a more representative board would result beneficially to the Association. Perhaps no one more than the members of the board themselves, appreciate the truth of this fact; but they have been duly elected by the members, and, like good, faithful officers, are doing their duty nobly. One of the best things brought out at the Buffalo convention was the fact that this unequal distribution of officials is a necessary result of the present system—a system by which each member is obliged to select some friend or acquaintance on short notice, or cast his ballot for the present incumbent, which has resulted in a very scattering vote, and the election, sometimes, of more than one director in a state, while a very large division of the Union has been left entirely without representation.

Suppose, as has been suggested by President-elect Hutchinson, in the Bee-Keepers' Review, that circumstances should arise by which a change of directors or general manager was necessary to the welfare of the Association. Under the present individual, quick-meal plan of making nominations, it would be next to impossible to effect such a change. It is one of those little things that become more perplexing as they are considered. Its solution must come through a suggestion which will result in the nomination of candidates, we should say, not later than July; so that the members will have ample time for thought or correspondence before the December elections.

Our readers are invited to use these columns in giving expression to their ideas relating to the matter.

The last number of the eleventh volume is in the reader's hand, and we are now preparing to enter upon our twelfth year under more auspicious conditions than at any time within the history of the present management. We are grateful for the numerous courtesies and kind acts extended by our patrons during the year just closed, and trust our efforts may be deemed worthy of their continuation through 1902.

That every reader of the American Bee-Keeper may enjoy a Merry Christmas, a very Happy New Year and a prosperous whole year to come, is a sincere wish jointly extended by The W. T. Falconer Mfg. Co. and H. E. Hill.

Hereafter it is our purpose to mail The Bee-Keeper on the first of each month. If any reader should fail to receive his copy in due time, kindly write us promptly, and another will be immediately sent. Address, Fort Pierce, Fla., as the editor will have charge of the mailing list in the future.

The home of THE BEE-KEEPERS' REVIEW, Flint, Mich., was the scene of a delightful double wedding on October 16th; the occasion being the marriage of Editor Hutchinson's twin daughters, the Misses Nora and Cora, two of Flint's most estimable and accomplished young ladies. The former, who has for several years been a compositor in the REVIEW office, is now Mrs. A. G. Hartshorn, and is mistress of her own home, happily situated next door to the paternal roof. Mr. Hartshorn holds a position with a leading dry goods house of Flint. The other happy man is Mr. E. F. Hanneman, a carriage-trimmer of the same city, whose new domicile is located but a block from "father" Hutchinson's home; so, the pleasure of the occasion is not even marred by the usual separation. Both of Editor Hutchinson's new sons are industrious young men of exemplary character. While extending sincere well wishes to all, THE BEE-KEEPER desires to be especially specific in its congratulations to Brother Hutchinson, upon the fortunate acquisition of two such estimable sons, a commodity upon which, it appears to us, he has always been very "short." The young ones have THE BEE-KEEPER'S blessing.

MR. AND MRS. E. F. HANNEMAN. MR. AND MRS. A. G. HARTSHORN.

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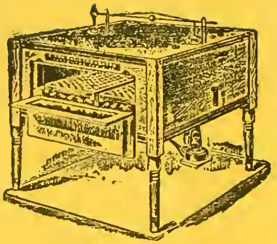

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